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scientific:

Edward A. Adelberg Recombinant DNA Research: Benefits and Risks 397
Rene A. Langou and John C. Wiles Coronary Surgery for Patients with Angina Pectoris ... 405
Richard C. McGinn, Peter A.T. Grannum and Alfred E. Reichenbach Vaginal Evisceration Following Total Abdominal Hysterectomy 410
Lee Sataline and Eugene D'Angelo Hereditary Oculopharyngeal Dystrophy 412
James J. Nordlund and Aaron B. Lerner Melanomas: Fascinating Tumors 414

special articles:

Commission on Hospitals and Health Care Third Annual Report to the Governor and General Assembly 419
Laurence R. Tancredi and Andrew E. Slaby Releasing the Mentally Ill: Justice or Irresponsibility 429
AMA Council on Medical Education Excessive Fees in Continuing Medical Education 435

editorials:

Russell B. Roth Who's Afraid of the F.T.C.? 439
Glenn Affleck What Price Prevention? 440
Fred Fabro DNA Recombinant Research 441

departments:

Robert U. Massey Reflections from the Dean's Office 438
Letters to the Editor:
Peter E. Hope-Ross, Lewis M. Portnoy and E. Tremain Bradley Outpatient Biopsies 443
Barr H. Forman Hypertension in the New Haven Area 443
CSMS—Annual Meeting Summary of Proceedings 447
Hilliard Spitz Address of the President 448
CSMS—Annual Reports Report of the Council 451
Report of the Committee on Professional Liability 455
William R. Richards From the Executive Director's Office 460

general:

Month in Washington 436
An Award for *Connecticut Medicine* 443
Welcome, New Members 459
Physician Placement Service 464

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***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Recombinant DNA Research: Benefits and Risks

Edward A. Adelberg, Ph.D.

ABSTRACT—A new technology makes possible the introduction of DNA fragments from any source—virus to human—into a bacterium such as *Escherichia coli,* producing a culture in which every bacterial cell replicates the foreign DNA along with its own. The inserted fragment can be extracted and recovered in high yield. Furthermore, a foreign gene may become expressed in the bacterial cells, so that a gene product—formerly found only in the organism from which the foreign DNA was taken—may now be produced by the bacteria. The benefits which such technology is anticipated to bring to basic genetic research, to clinical medicine and to agriculture are discussed, as are the hypothetical risks to society.

Our understanding of the mechanism of inheritance arrived at the molecular level with Watson and Crick's publication, in 1953, of a model for the structure of DNA.[1] In the following two decades the new field of molecular biology burgeoned, as experiments based on the Watson-Crick hypothesis rapidly solved some of the most fundamental problems of genetics. These experiments, performed almost exclusively with the bacterium, *Escherichia coli,* and its viruses, depended on the simultaneous development of the field of bacterial genetics: *E. coli* cells were found to exchange genes by the processes of conjugation, transduction and transformation, and to be amenable to mutation induction and selection with great efficiency. These phenomena were exploited in experiments which, when coupled with radioisotope labeling techniques, revealed the basic mechanisms not only of gene duplication and mutation, but also of gene expression (i.e., protein synthesis)[2].

Bacteria are suited to this type of experimentation because of the relative simplicity of their cellular and genomic organization: their single chromosome consists of a circular molecule of double-stranded DNA with a molecular weight of about 3×10^9 daltons, equivalent to about 5000 genes with an average length of one thousand nucleotide pairs; in contrast, each human cell contains over 3×10^{12} daltons of DNA, organized into twenty-three pairs of chromosomes of great structural complexity. Furthermore, bacteria exhibit little, if any, differentiation, whereas the cells of plants and animals undergo elaborate differentiation processes during development, different sets of genes becoming activated and expressed in different tissues. Finally, the organized development of the multicellular individual implies that a mechanism exists for the precise control of cellular growth and division.

Although sufficient experiments have been done to confirm that higher organisms share the basic mechanisms of gene duplication and gene expression discovered in bacteria, we have little understanding of the mechanisms of differentiation and growth regulation which have been superimposed upon them during evolution. The very complexities which we wish to understand make experimentation difficult or impossible: we cannot manipulate the DNA of higher organisms *in vivo* as we can the DNA of bacteria. What has been lacking until very recently has been a way of analyzing the role of DNA not only in normal differentiation and growth regulation, but also in their abnormal counterparts: birth defects and neoplasia.

These problems quite suddenly became amenable to attack in the early 1970's, with the development of a new technology that permits the introduction of DNA fragments from any source—virus to human—into a bacterium, such that a culture is produced in which every bacterial cell replicates the foreign DNA along with its own[3]. The inserted DNA, containing one or more foreign genes, can then be extracted in high yield and analyzed for its nucleotide sequence, physical structure, and activity in a variety of systems. Furthermore, a foreign gene may become expressed in the bacterial cells, so that its product—formerly found only in the plant or animal from which the foreign DNA was taken—may now be produced by the bacteria in culture, and also isolated in high yield.

The application of this technology is called recombinant DNA research. In this article I will briefly describe its methodology, and discuss its anticipated benefits as well as its perceived risks. Finally, I will trace the history of the public events associated with efforts to regulate or ban research of this kind.

Methodology

Background

Before discussing the actual methods of recombinant DNA research, we must first review two subjects of molecular biology: bacterial plasmids*, and

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*Almost everything to be said here about plasmids applies equally to bacterial viruses (bacteriophages), which differ from plasmids in their ability to acquire a protein coat, escape from the cell, and infect new host cells in a lytic manner. For the purposes of this article I will limit my discussion to plasmids, although bacteriophages such as the *E. coli* phage, λ, are also being used by many investigators.

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enzymes which permit the cutting and splicing of DNA molecules.

Plasmids: Bacteria are hosts to small, extrachromosomal genetic elements called plasmids[4]. Plasmids are dispensable to the cell under ordinary conditions of growth; they are detectable when the genes they carry confer new properties on the host, such as drug resistance.

All naturally-occurring plasmids discovered to date are small, circular, double-stranded DNA molecules ranging in size from about 3 x 10^6 to 1 x 10^8 daltons. Some plasmids, including many found in *E. coli,* confer on the cell the ability to conjugate: contact is made with a second cell, which receives a replica of the plasmid by a complex process called transfer replication. All plasmids, however—even non-conjugative ones—can be extracted from their host cells and introduced into fresh recipients by transformation: the process in which free DNA is actively taken in through the cell membrane.

Once in the cell of a suitable host, the plasmid DNA is replicated in a regulated manner. In some cases this regulation can be experimentally suppressed, so that the cell will produce several hundred copies of the plasmid, instead of the normal number of less than ten.

Enzymes: Bacteria produce enzymes called restriction endonucleases, which recognize short sequences of four to eight base pairs in DNA and cleave the two strands at specific positions within the recognition site[5]. In many cases, a staggered cut is made (Figure 1). The cut fragments are said to have cohesive ends, since the exposed complementary bases have an affinity for each other and will anneal (undergo hydrogen bonding) under proper ionic conditions.

Cohesive ends can also be added to DNA fragments by an enzyme called terminal transferase, which sequentially adds nucleotides to the 3′ ends. Thus, one can take a preparation of DNA fragments and add strings of thymidylic acid residues (poly T) to its 3′ ends, and to another preparation add strings of deoxyadenylic acid residues (polyA). When mixed together, the two differently-modified fragments will anneal together[6], forming a sequence of A-T base pairs.

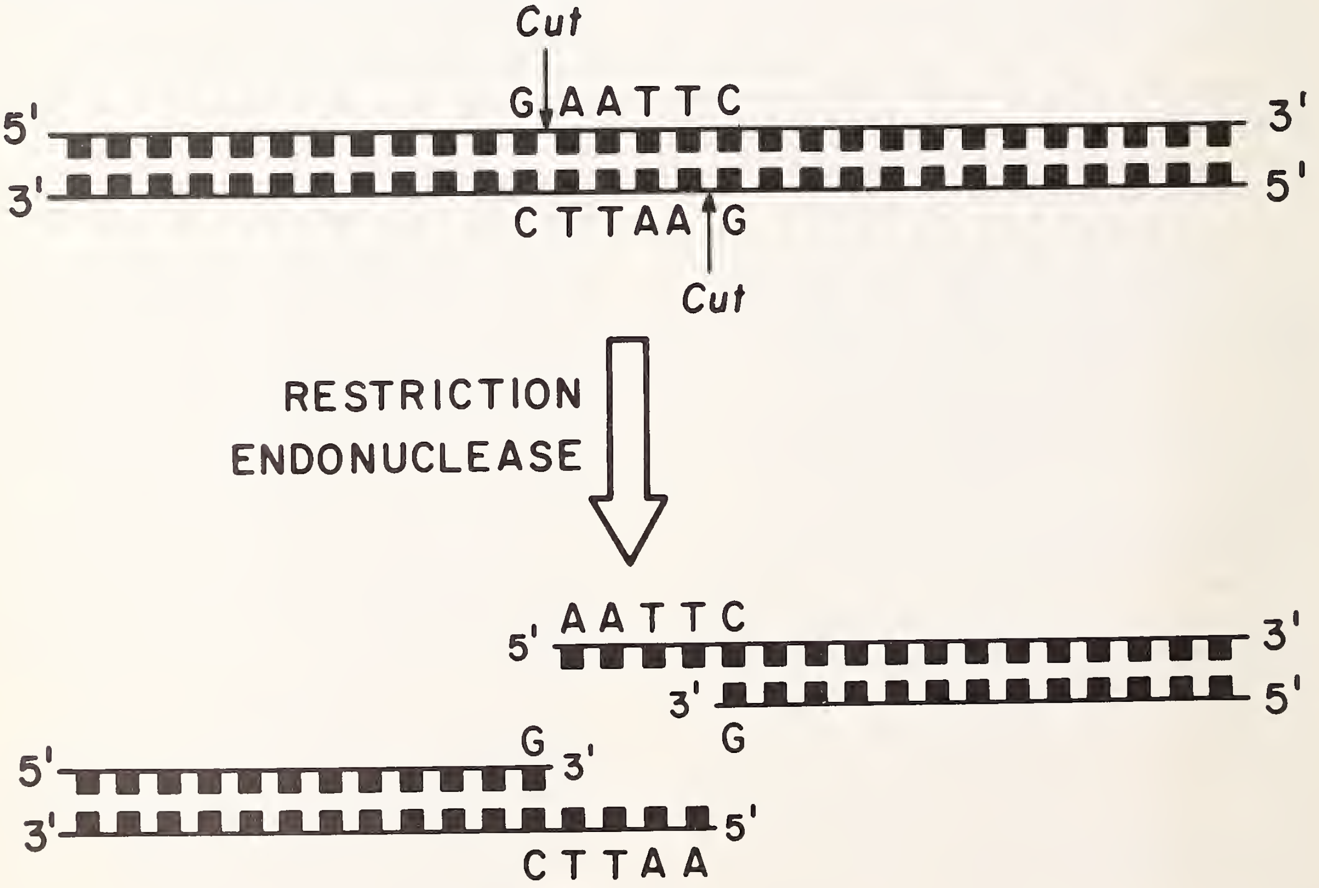

Figure 1
A segment of double-stranded DNA is drawn schematically, with the hydrogen-bonded complementary base pairs (G-C and A-T) represented by the vertical bars. The restriction endonuclease, *Eco*RI, recognizes the sequence G-A-A-T-T-C, and cleaves the sugar-phosphate linkage between G and A. Note that the recognition site is a palindrome, reading the same from left to right as from right to left starting at the 5′ end of the sequence; this results in both strands being cut at the identical position. In this case the cuts are staggered, leaving cohesive ends (single-stranded terminal regions which have complementary base-pair sequences, and can therefore re-anneal with each other by hydrogen-bonding).

The annealed fragments form a recombinant DNA molecule which is intact, except for the gaps where the overlapping cohesive ends meet. These gaps can be closed by the action of the enzyme polynucleotide ligase, which forms new sugar-phosphate bonds in the DNA backbone.

Methods

Figures 2, 3 and 4 illustrate one sequence of operations by means of which a segment of foreign DNA can be established in *E. coli*. The following steps are shown:

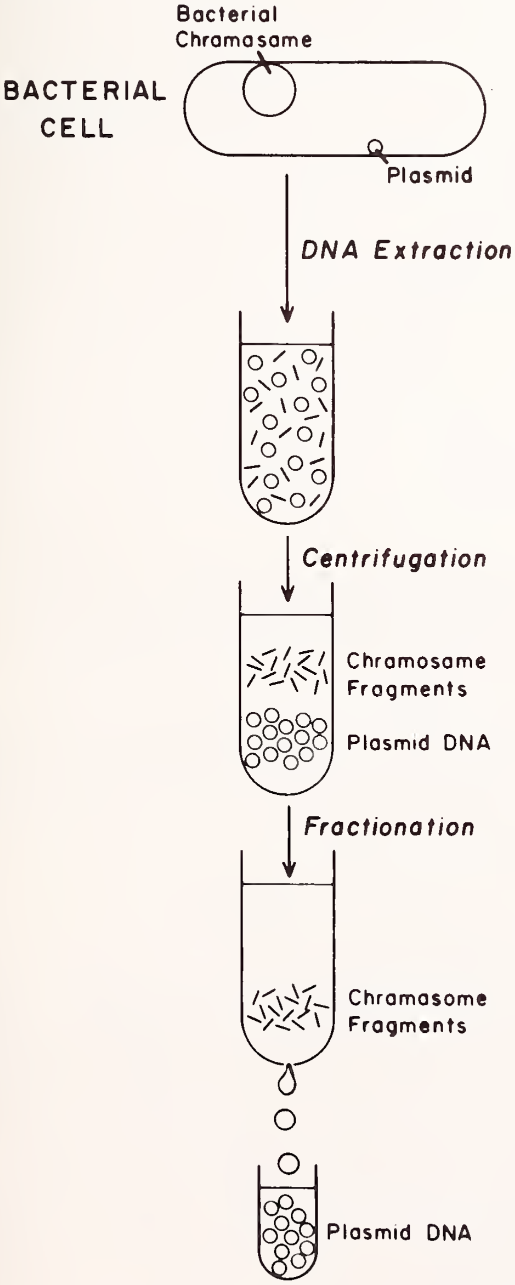

Figure 2
DNA is extracted from *E. coli* cells carrying a tetracycline-resistence plasmid, and centrifuged in a solution of cesium chloride plus ethidium bromide. The cesium chloride forms a density gradient, in which the circular plasmid DNA (which binds ethidium bromide) reaches equilibrium at a different density from that at which the linear fragments of chromosomal DNA equilibrate. (After Cohen (3)).

(1) A plasmid, which carries a gene conferring tetracycline-resistance on its host, is extracted from a culture of *E. coli* cells and purified (Figure 2).

(2) The plasmid is treated with a particular restriction endonuclease, chosen because preliminary experiments have shown that only a single recognition site for that enzyme exists in the plasmid DNA. The foreign DNA (e.g., extracted from human cells) is treated with the same endonuclease, cleaving it into fragments with cohesive ends. The plasmid DNA and foreign DNA are mixed; many molecules will anneal as shown, inserting a fragment of foreign DNA into the plasmid; the gaps are then sealed with polynucleotide ligase (Figure 3).

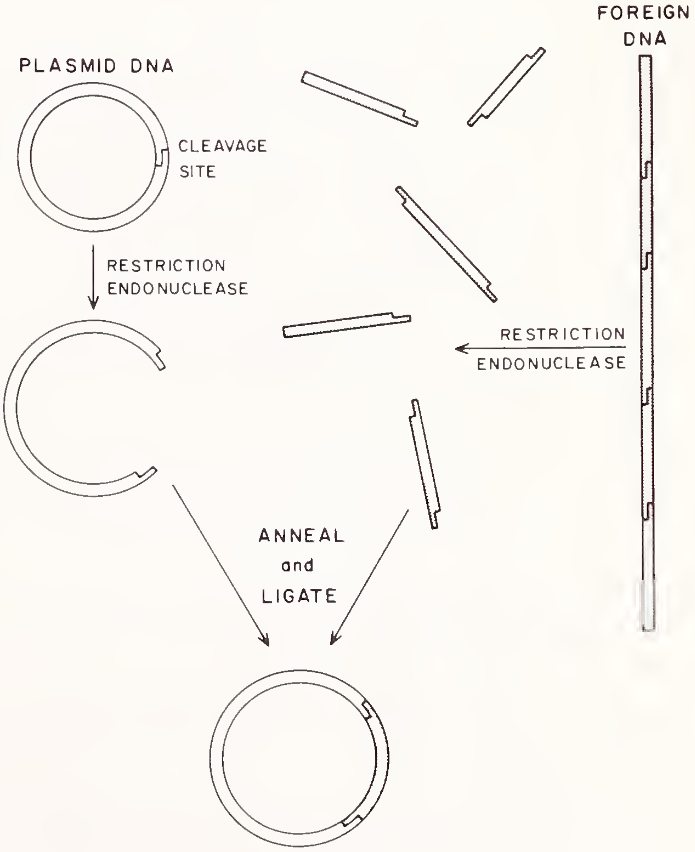

Figure 3
Plasmid DNA, containing one cleavage site, and foreign DNA, containing several randomly-located cleavage sites, are treated with the same restriction endonuclease. The fragments produced have complementary cohesive ends (see Figure 1). When mixed together and subjected to annealing (hydrogen bonding) conditions, some circles will form consisting of a segment of foreign DNA inserted into the plasmid; the process is completed by sealing the gaps with polynucleotide ligase.

(3) The preparation is added to a culture of tetracycline-sensitive recipient bacteria, which take up the DNA (Figure 4). The cells are then plated on tetracycline-containing agar; only those cells which have taken up and established the plasmid will express the tetracycline-resistance gene and form colonies on this medium.

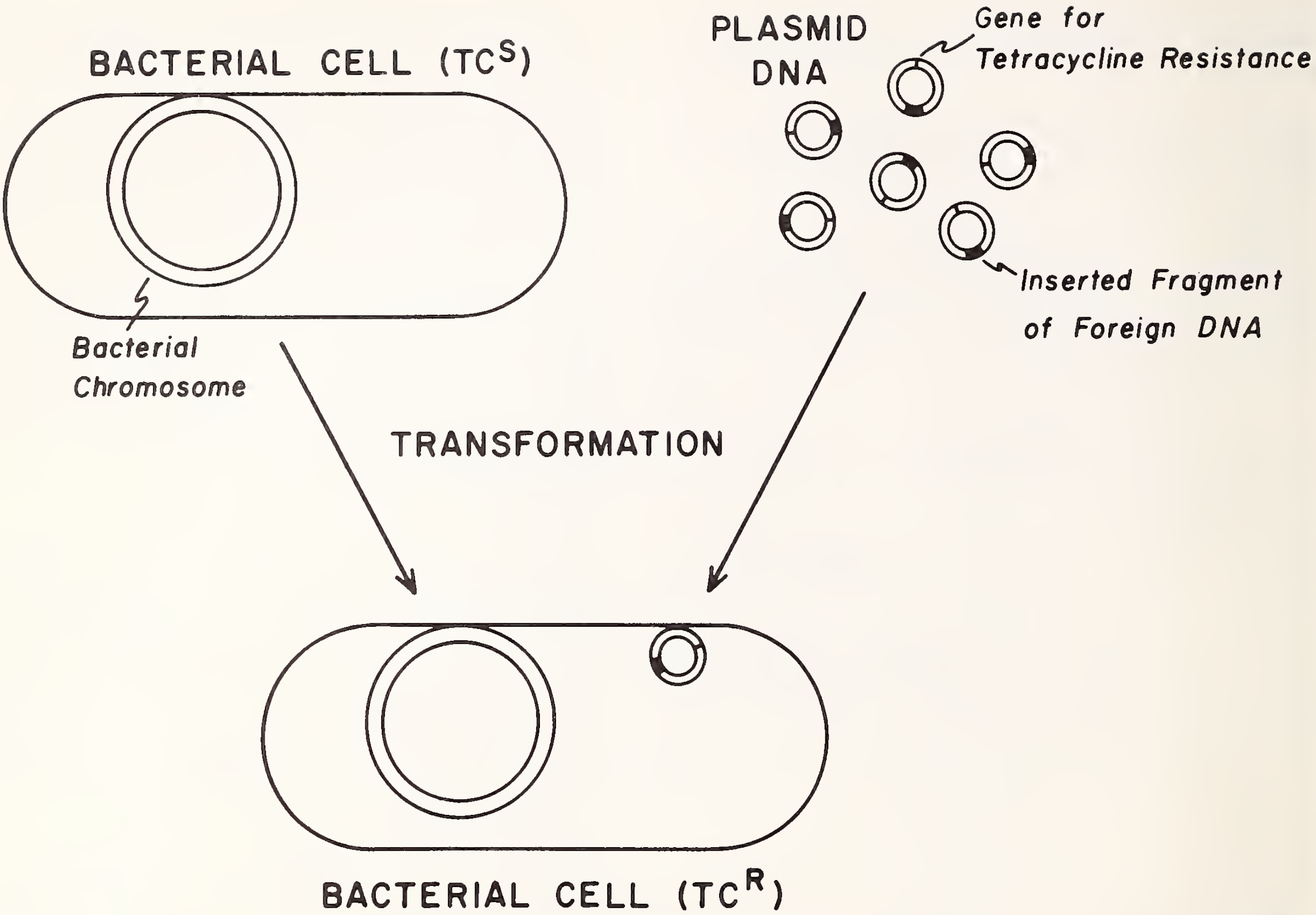

Figure 4
A culture of tetracycline-sensitive (TC^S) *E. coli* cells is exposed to a plasmid which contains an inserted fragment of foreign DNA; the plasmid also carries a gene for tetracycline-resistance (TC^R). Under special conditions (high concentrations of calcium ion, in the case of *E. coli)* the plasmid DNA is taken up by the bacterial cell and established as a replicating unit (transformation).

The colonies which appear are picked and tested for the presence of the desired foreign DNA fragments. This can be done in one of two ways:

(1) The DNA can be extracted and analyzed by electrophoretic techniques to reveal the presence of the new segment.

(2) A radioactive probe is prepared, consisting of single-stranded RNA or DNA complementary to one strand of the foreign DNA segment; the probe is then added to an alkali-treated sample of each bacterial colony. If the foreign DNA is present in the bacteria the radioactive probe will anneal with it, and can be detected by radioautography.

Using the above or similar methods, a rapidly-growing list of DNA fragments and specific genes have been propagated in *E. coli.* The list includes human genes for hemoglobin[7], toad genes for ribosomal RNA[8], sea urchin genes for histones[9], and yeast genes for certain enzymes of amino acid biosynthesis[10]. In addition, banks of DNA fragments have been established: the entire genome of one species of yeast has been cut into fragments and established in a set of about 5,000 *E. coli* cultures; the genome of *Drosophila melanogaster,* the fruit fly, has been similarly banked; and plans are being made for the establishment of a bank of human DNA fragments.

Benefits

Basic Knowledge

In higher organisms, only a fraction of the total DNA codes for proteins; the remainder has unknown functions, including those involved in regulating gene expression for the control of growth and development. To discover how these processes work, we must be able to isolate specific DNA sequences from different parts of the chromosome and compare their structures and activities. The techniques of recombinant DNA research make such discovery possible for the first time.

Practical Applications

A number of exciting practical applications are foreseeable, some in the immediate future and some which will take much longer. The first to be realized will probably be the tailoring of viral and bacterial DNA to permit the production of totally safe vaccines; soon after will come the production in bacterial cultures of human gene products for clinical use, such as hormones and enzymes. In the more distant future, it is probable that ways will be found to introduce desirable genes into crop plants.

The application of recombinant DNA techniques to the production of safe vaccines is already underway. The problem is to produce an immunizing agent that will induce an antibody response without expressing the invasive or toxigenic properties or the natural pathogen. In the past this has been accomplished either by passaging a pathogenic bacterium or virus under artificial conditions until it loses (in unknown, and sometimes reversible ways) its invasiveness or toxigenicity, or by chemically modifying a virus or a toxin. For some pathogens these procedures have not been successful, and no vaccine is available. For some others, the vaccine is not entirely safe. Recombinant DNA research, however, offers a new approach: a gene coding for a protein antigen of a pathogen can be established and caused to be expressed in a non-toxigenic bacterium, which can then be used as a perfectly safe vaccine. It should similarly be possible to isolate the gene for a toxin and alter its sequence by enzymatic or other treatment, such that on re-introduction into a bacterium the altered gene product will have lost its toxicity without loss of immunogenicity.

The approach to the production of clinically useful human gene products is equally straightforward. Randon fragments of human DNA must be inserted into bacterial plasmids, and a colony of bacteria containing the desired fragment must be detected, either by the use of a radioactive probe as described above, or by the use of an agent that permits detection of the gene product itself. Once the colony is detected, it can be used as the inoculum for large-scale culture and product isolation. At least one major pharmaceutical company is interested in eventually producing human insulin by such means.

One possible application of recombinant DNA research to the genetic improvement of crop plants emerges from recent work that strongly suggests the occurrence of plasmid transfer from the parasitic bacterium, *Agrobacterium tumefaciens*, to cells of host plants. The plant cells gain the ability to produce certain biosynthetic enzymes, and also become malignant; it should be possible to remove the segment of plasmid DNA responsible for malignancy, however, so that the plasmid can be used as a safe carrier of inserted foreign DNA.

For example, the genes for nitrogen-fixation (called the *nif* genes) are found only in certain bacteria, some free-living in the soil and others which form symbioses with the root cells of certain plants, such as the legumes. Nitrogen-fixation is the limiting process in many parts of the world for human food production; if the *nif* genes can be introduced and made to function in the major crop plants, such as the grains, a major step will have been taken in solving one of mankind's greatest problems. This goal, totally unimaginable a few years ago, may some day be realized by insertion of the *nif* genes into a disarmed plasmid, such as that harbored by *Agrobacterium*, and transfer of the plasmid into cells of the plant host[11].

Risks

Dangerous Knowledge

Among the critics of recombinant DNA research are those who argue that the ability to manipulate DNA in this manner is a power which could be used for evil purposes and should thus be prohibited altogether. The issue is whether society should suppress the acquisition of knowledge, when that knowledge could conceivably be used for evil purposes as well as for useful ones, or whether it should work to control the uses to which it is put. To me, the suppression of knowledge or its acquisition is a great enough evil in itself that I would always choose the risk of not being able to control its use.

The creation of harmful bacteria

Since the immediate end-product of recombinant DNA research is a bacterium carrying one or more foreign genes, the possibility must be considered that such a bacterium might be converted from a harmless form to a harmful one. This question is all the more pertinent because the bacterium most widely used in recombinant DNA research is a laboratory strain of *E. coli*, strain K12, derived from a species that inhabits (usually harmlessly) the intestinal tract of man and other vertebrates.

How realistic is the fear that *E. coli* K12 will, if it harbors a foreign DNA fragment, become a threat to mankind? To answer this question, we must first decide whether recombinant DNA research is going to produce new strains of bacteria never before seen on earth, or whether such strains are being formed in nature all the time. If the latter is true, then our laboratory products cannot change the population dynamics which already exist.

When DNA from bacteria is denatured and mixed with DNA from higher organisms, no annealing is detectable. This tells us that established species of bacteria and higher organisms do not share base pair sequences of significant length. This could mean either that bacteria in nature never take up the DNA of higher organisms and insert it into their own, or that this process does occur but produces weakened strains that cannot compete with the highly adapted forms already in existence, and are eliminated by natural selection.

All of our experience and calculations favor the latter interpretation. A mammal the size of a human being harbors between 10^{13} and 10^{15} bacteria in its intestinal tract; when the animal dies, these bacteria are transiently immersed in a rich solution of DNA and recombination-mediating enzymes liberated from lysing host cells. Since other nucleases are also liberated and rapidly degrade the DNA, the frequency of successful uptake and integration must be very low indeed. But even if it is as low as 1×10^{-13}, it must happen with a probability of at least once in every carcass, or millions of times every year.

It is also reasonable to assume that bacteria that do integrate foreign DNA into their own or their plasmids' genomes will be eliminated by natural selection. Most genetic changes that occur in nature are unfavorable, and only very rare and very small changes are observed to increase fitness; the introduction of a large block of foreign DNA can be predicted to have the opposite effect. As pointed out by Davis[12], the mechanisms that have evolved to prevent interbreeding between distantly related species serve to prevent the uneconomical production of monstrosities that cannot survive, rather than monsters that will take over the world.

Nevertheless, these are only theories, and one cannot prove a negative: namely, that a bacterium altered by recombinant DNA research will not be competitive in nature and, if it escapes the laboratory, will not do some sort of harm to man or his environment. In order to estimate the probability of this occurring, let us consider the sequence of events which would have to take place. Remember that the probability for the entire sequence is the *product* of the probabilities of the individual events:

(1) The recombinant bacterium must escape from the laboratory: e.g., through the air, through the drains, or on the persons of laboratory workers.

(2) It must survive and multiply in the natural environment.

(3) It must infect new individuals; in the case of *E. coli*, this requires ingestion in contaminated food or drink.

(4) It must survive and multiply in the intestinal tract of the infected individual.

(5) It must produce a harmful substance (i.e., a toxin) or it must transfer (to the cells of the host) DNA which can cause malignant transformation.

For each of these steps, there are factors which operate to make the probability of its occurrence very low. For steps (2) and (4), I have already pointed out the unlikelihood of competitive survival; in addition, all recombinant DNA research in this country is being carried out with strains of *E. coli* K12 which—even without recombinant DNA—are unable to survive more than a few days in the mammalian intestinal tract. The probability of step (3)—the infection of new individuals—has already been reduced by sanitation and other public health measures, to the point where epidemics of enteric disease involving secondary chains of transmission are virtually unknown in the United States.

Steps (1) and (5) are the ones which first aroused concern among scientists involved in recombinant DNA research. As recounted below, their public actions led to the adoption of guidelines both in this country and abroad for the conduct of such research: step (1) is dealt with by requiring that recombinant bacteria be handled in facilities that afford appropriate levels of physical containment, and step (5) is dealt with by prohibiting the introduction into bacteria of genes coding for toxic products, or genes (such as exist in tumor viruses) that cause malignant transformation. In addition, the guidelines require that certain types of DNA be propagated only in genetically "disarmed" strains of *E. coli* K12 with extremely low capacity to survive in nature.

Each of the five steps, then, has a low probability of occurrence; multiplying all five independent probabilities together gives, in my estimation, an overall probability so low as to be insignificant in terms of risk to the general public or to the environment.

Public Events

In July of 1973, a group of scientists attending a Gordon Conference on nucleic acids in New Hampshire published an open letter to the President of the National Academy of Sciences, calling his attention to the risks that are outlined above and urging that a committee be established to evaluate those risks and recommend appropriate action[13].

Shortly thereafter, such a committee was established under the chairmanship of Paul Berg of Stanford University. In 1974, the Berg Committee published its own open letter, calling for a voluntary moratorium on experiments involving DNA from tumor viruses, DNA coding for toxins, or DNA coding for resistance to antibiotics if such resistance was not already known to occur in the bacterial species in use[14]. Caution was urged in other types of recombinant DNA research, and plans were made for an international meeting on the subject. The letter also called on the National Institutes of Health to form a special committee for the purpose of drawing up guidelines for the future conduct of research of this kind.

The international meeting was held in February, 1975, at the Asilomar Conference Center in Pacific Grove, California, under the auspices of the National Academy. It was attended by 175 scientists from 15 countries, and ended with a nearly unanimous series of resolutions that refined and extended the recommendations of the original Gordon Conference group[15]. The following day, a newly-established committee of the N.I.H. began the task of writing a detailed set of Guidelines for the conduct of recombinant DNA research.

The committee's work, extending over a period of almost eighteen months, was influenced by a wide spectrum of scientific and lay opinion expressed at its open meetings, at a special hearing conducted by the Director of the N.I.H., and by mail. On June 23, 1976, the Director published the Guidelines[16], which have since been subscribed to by all federal agencies and have served as a model for similar actions in other countries.

The Guidelines' statements and recommendations may be described as follows:

(1) The prohibitions against the propagation of certain types of DNA, as recommended at Asilomar, are continued.

(2) A series of facilities and procedures are described which provide for four increasingly stringent levels of physical containment. These are labeled P1 through P4; P1, for example, is characteristic of a standard microbiological laboratory, while P4 is characteristic of the dozen or so high-containment facilities which exist in the United States for the handling of the most dangerous pathogenic viruses and microorganisms.

(3) A series of host-vector* systems is described which provide for three increasingly stringent levels of biological containment. These are labeled EK1 through EK3 ("EK" standing for *E. coli* K12). EK1 systems involve existing strains of *E. coli* K12, carrying non-conjugative plasmids or phages. EK2 systems are those which have been genetically modified so that the chance of survival of the inserted foreign DNA fragment in natural environments is below 10^{-8} as demonstrated in laboratory experiments. EK3 systems are EK2 systems for which this survival limit has been verified by more extensive tests in animals, including primates.

(4) All permitted types of experiments are classified according to hypothetical risk, those involving DNA from organisms most closely related to man being assumed to offer more risk than DNA from organisms less closely related. Special considerations are applied to experiments with plant DNA, in terms of hypothetical risk to cultivated plants as well as to wild plants in the environment. Each type of experiment is assigned a minimum level of physical and biological containment; for example, experiments in which random fragments of primate DNA are propagated in *E. coli* must be done under P4 + EK2, or P3 + EK3, conditions, whereas the propagation of random yeast DNA fragments may be done under P2 + EK1 conditions. Once a fragment of DNA has been purified and shown to be free of harmful genes, the required level of containment for its propagation is lowered one step.

(5) The roles and responsibilities of investigators, safety committees and institutions are defined. Each institution at which recombinant DNA research is being done is required to appoint a Safety Committee, which is responsible for certifying the containment levels in use and for a variety of other safety measures.

Despite the stringency of these Guidelines, and the assured adherence to them of all academic and research institutions in the country, three types of concern are still being expressed by a number of highly vocal individuals and action groups:

(1) Some are concerned about the lack of power to enforce compliance with the Guidelines. The penalty for non-compliance is, at present, the loss of financial support by a governmental agency; the pharmaceutical industry, which anticipates a major effort in recombinant DNA research, is under no compulsion to comply.

(2) Some, unconvinced by the arguments that I have summarized above concerning probabilities, consider the containment provisions of the Guidelines inadequate and demand that *all* recombinant DNA research be done within a small number of isolated, P4-level facilities.

(3) Finally, there are those whose concerns are more political than technological: they either oppose recombinant DNA research out of fear for its eventual misuse, and/or they oppose the procedures by which the decisions concerning it have been reached.

At the time of this writing, the Congress of the United States is deliberating the passage of laws which will make compliance with the Guidelines mandatory, and will call for inspection procedures, licensing arrangements, and penalties for non-compliance. Other countries are engaging in similar debates and plans, and international cooperation is being fostered by a number of agencies. Those who would ban all recombinant DNA research, or confine all of it to P4 facilities, appear to be in the minority, and the emphasis now seems to be on enforcement of the N.I.H. Guidelines in this country, and of similar guidelines elsewhere. I believe that the great majority of scientists as well as of the informed public shares my own view that recombinant DNA research promises mankind an enormous benefit in both knowledge and practical consequences, at a risk which—given observance of the Guidelines—is truly negligible.

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*E.g., a particular bacterial strain carrying a particular plasmid or phage.

REFERENCES

1. Watson JD, Crick FHC: Genetical Implications of the Structure of Deoxyribonucleic Acid. *Nature, 171:* 964-969 (1953)
2. Watson JD: Molecular Biology of the Gene WA Benjamin, Menlo Park, Calif, 3rd Edition, 1976
3. Cohen SN: The Manipulation of Genes, *Sci American, 233:*25-33, (July, 1975)
4. Meynell GG: Bacterial Plasmids, MIT Press, 1973
5. Nathans D, Restriction Endonucleases in the Analysis and Restructuring of DNA Molecules. *Ann Rev Biochem, 44:*273-293 (1975)
6. Jackson DA, Symons RH, Berg P: Biochemical Methods for Inserting New Genetic Information into DNA of SV40: Circular SV40 DNA Molecules Containing Lambda Phage Genes and the Galactose Operon of *Escherichia coli, Proc Nat Acad Sci US, 69:*2904-2909 (1975)
7. Rabbits TH: Bacterial Cloning of Plasmids Carrying Copies of Rabbit Globin Messenger RNA, *Nature, 260:*221-225 (1976)
8. Morrow JF, Cohen SN, Chang ACY, Boyer HW, Goodman M. Helling RB: Replication and Transcription of Eukaryotic DNA in *Escherichia coli, Proc. Nat. Acad. Sci US, 71:*1743-1747 (1974)
9. Kedes LH, Chang ACY, Houseman D, Cohen SN: Isolation of Histone Genes from Unfractionated Sea Urchin DNA by Subculture Cloning in *Escherichia coli, Nature, 255:*533-538 (1975)
10. Struhl, K, Cameron JK, Davis RW: Functional Genetic Expression of Eukaryotic DNA in *Escherichia coli, Proc Nat Acad Sci US, 73:*1471-1475 (1976)
11. Marx JL: Research News: Nitrogen Fixation: Prospects for Genetic Manipulation, *Science, 196:* 638-641 (1977)
12. Davis BD: Evolution, Epidemiology, and Recombinant DNA, in "The Recombinant DNA Debate", Jackson DA, and Stitch SP, Editors, U Mich Press, 1977
13. Singer M, Soll D: Guidelines for DNA Hybrid Molecules, *Science, 181:*1114 (1973)
14. Berg P, Baltimore D, Boyer HW, Cohen SN, Davis RW, Hogness DS, Nathans D, Roblin R, Watson JD, Weissman S, Zinder ND: Potential Biohazards of Recombinant DNA Molecules, *Science, 185:*303 (1974)
15. Berg, P, Baltimore D, Brenner S, Roblin RO, Singer MF: Asilomar Conference on Recombinant DNA Molecules, *Science, 188:* 991-995 (1975)
16. Frederickson DS: Recombinant DNA Research Guidelines, *Federal Register, 41:* 27902-27943 (1976)

A Resolution on Federal Regulation of Recombinant-DNA Research

The following resolution was passed by voice vote April 26 by members of the National Academy of Sciences at the Academy's 114th annual meeting, in Washington, D.C.

Three years ago the National Academy of Sciences played an important role in initiating responsible and informed discussion on the need for controls on recombinant DNA research. The subsequent debate, both inside and outside the scientific community, resulted in a set of guidelines formulated under the sponsorship of the National Institutes of Health. Now the Congress is considering several drafts of detailed and far reaching legislation dealing with the regulation of recombinant DNA research.

The NIH guidelines are the result of careful deliberation and we favor their simple conversion into a uniform national set of regulations. However, much of the proposed legislation now before Congress would allow local communities or states to set their own stricter regulations, including even a complete ban on this type of research. It is reasonable for the local community to participate in supervising adherence to regulations. But the question concerns speculative rather than known dangers and these would not vary from one locality to another.

The research institutions of the country constitute an important national resource, and differing local options could subject that resource to arbitrary regulations. Overly restricting this type of research would severely degrade the capability of biomedical research and limit its contribution to the public welfare. In essence, it would allow a local community to affect a critical component of national policy. Above all, local option would set a dangerous pattern for the regulation of basic research in a manner that might deprive society of substantial future benefits.

Some of the legislation proposes to establish a national regulatory commission expressly to govern recombinant DNA research. Its broad powers for controlling basic research represent a wholly new and unfortunate departure. We are also concerned that it would set a precedent for the regulation of other areas of science. A much simpler and more flexible mechanism allowing for public participation could carry out those functions that may be needed.

Therefore, be it resolved that we voice concern about legislative developments in this area and ask the President of the National Academy of Sciences to relay these concerns to appropriate officials in the government.

Proposed by: D. Baltimore, B.D. Davis, H. Eagle, J.T. Edsall, C. Grobstein, D.M. Horstmann, R. Hotchkiss, R.J. Huebner, A. Rich, W.A. Rosenblith, F.N. Ruddle, R.L. Sinsheimer, E.L. Smith.

—*News Report*, July 1977

Coronary Surgery for Patients with Angina Pectoris

Rene A. Langou, M.D. and John C. Wiles, M.D.

ABSTRACT—Preoperative and operative risk factors for operative mortality were studied by chi-square analysis in 172 consecutive patients undergoing coronary artery bypass grafting without combined surgical procedure for Ischemic Heart Disease at Yale-New Haven Hospital from July 1974 to July 1975. Of the 172 patients, 135 had chronic stable angina pectoris; 27 accelerated angina pectoris, 6 post myocardial infarction angina; 1 post myocardial infarction cardiogenic shock; 2 intractable ventricular arrhythmias; and 1 congestive heart failure.

The operative mortality was 5.2% for the entire group. The relationship between operative mortality and various preoperative and operative factors allowed definition of "potent" and "weak" risk factors. Potent risk factors were: 1) Class IV angina and accelerated angina pectoris; 2) Left Main Coronary Artery Disease; and 3) duration of Cariopulmonary bypass longer than 120 minutes. Minor risk factors were: 1) female sex; 2) age 60 years or older; 3) congestive heart failure and 4) the number of diseased vessels.

Introduction

Ideally, therapy for patients with ischemic heart disease should both relieve disabling symptoms and increase survival rates. Aortocoronary bypass grafts[1] can relieve severe angina in most patients[2-3] but have appreciable immediate costs. The decision about such operations, therefore involves balancing these short-term costs (e.g. perioperative mortality and morbidity) against possible long-term benefits (e.g., relief of angina, and prolonged survival). Although the physician caring for a particular patient with coronary disease can provide advice about these costs and benefits, the ultimate decisions must be made by the patient and ought to depend, in part, upon the relative importance of relief of pain and survival to him. Providing the patient with meaningful, objective data about his prognosis is a very difficult task since the medical literature is replete with conflicting reports and since prognosis in a particular patient depends on the availability of necessary resources and upon the skill of the physicians and surgeons.

The present study was undertaken to determine from this series of patients with stable angina pectoris, which patients have higher risks for operative mortality, and to provide the practicing physician with objective data related to coronary bypass grafting.

Material and Methods

One hundred seventy-two consecutive patients underwent cardiac catheterization and coronary artery bypass grafting without associated surgical procedures at Yale-New Haven Hospital between July 1974 and July 1975.

All patients had severe disabling angina pectoris despite adequate medical therapy, therefore they were considered to be surgical candidates.

Primary Indication for Surgery

Primary indications for myocardial revascularization in these 172 consecutive patients were: chronic stable angina pectoris (typical stable angina longer than 3 months prior to operation) 135 patients; accelerated angina pectoris (defined as angina which had experienced a major change in evolutionary pattern within the last 3 months, but without fulfilling the requirements of unstable angina pectoris) 27 patients; post myocardial infarction angina (this group included all patients who began to experience angina attacks within one month after an acute myocardial infarction) 6 patients; post myocardial infarction cardiogenic shock, not complicated by ventricular aneurysm, acquired ventricular septal defect or rupture of papillary muscle, 1 patient; intractable ventricular tachyarrhythmias, 1 patient; and congestive heart failure, 2 patients.

Definition of Variables

Operative mortality, in this study, was considered to be in hospital death or death up to 6 weeks postoperatively. Angina pectoris and congestive heart failure were graded according to the New York Heart Association functional classification. Physical findings were used to confirm symptoms of congestive heart failure in classes III and IV. Patients were recorded as having no trial of a β-adrenergic blocking agent (propranolol), as having had less than 160 mg per day, or as having had 160 mg or more per day. Cardiac enlargement was determined by chest x-ray ($>50\%$ CT ratio). The ejection fraction was calculated from the left ventriculogram according to Greene's single-plane

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method, (4) and mitral regurgitation was recorded as absent or present. Left ventricular end-diastolic pressure, was considered normal if 12 mm Hg or less. Coronary artery disease was defined as narrowing of a portion of a vessel by 70% or more of its cross-sectional area. Coronary atherosclerosis was recorded as one-, two-, or three-vessel disease with disease of the left main coronary artery being considered equivalent to disease of the proximal left anterior descending artery and the proximal left circumflex artery. Notation was also made of which vessels were involved in each patient. When information on some preoperative clinical characteristic of a patient was not available, that patient was removed from the analysis of that variable. Revascularization was considered incomplete if grafts were not placed in each of the diseased coronary vessels. Cardiopulmonary bypass time refers to the total bypass time.

Operative Technique. Left internal mammary artery grafts were used whenever possible when the left anterior descending coronary artery (LAD) was to be grafted. Saphenous vein grafts (which can be done more easily) were used for the LAD only when the mammary artery was damaged or in very unstable patients. Saphenous vein grafts were obtained from the thigh, but occasionally it was necessary to use cephalic veins. In one or two instances when veins from neither of these sites were suitable (varicose, stripped, or too small) the right internal mammary artery was used to graft the right coronary artery.

Dissection of the left internal mammary artery from the chest wall and proximal anastomoses of saphenous vein grafts were both accomplished without cardiopulmonary bypass. Side-biting clamps were employed for proximal anastomoses of saphenous veins to the aorta. Distal anastomoses were done on full cardiopulmonary bypass with the heart in ventricular fibrillation, and aortic cross-clamping was used, only, when a dry field could not be obtained by local occlusion of the coronary artery. Occasional endarterectomies were done to permit greater graft flows.

Demographic and Baseline Characteristics. This study included 172 patients, of whom 134 (78%) were men and 38 (22%) were women. The average age of the patient population was 55.38 years, ranging from 31 to 76. Other preoperative clinical characteristics of the population under study are presented in Table 1. The intra-aortic balloon counterpulsation device was used in 38 patients (22.1%) at some point during their hospital stays.

Statistical Methods. Contingency table chi-square (x^2) was the principal statistical method used to analyze the data. This method permitted the examination of each of the study factors in relation to the outcome variable; operative mortality. From this analysis those risk factors associated with each dependent variable could be determined. Initially, the study variables were examined one at a time, and then in combinations of two or three factors.

Table 1

CLINICAL CHARACTERISTICS

	Number of Patients	*Percent of Patients*
Anginal Status		
Class I	9/172	5.2
Class II	24/172	14.0
Class III	61/172	35.5
Class IV	78/172	45.3
Congestive Heart Failure	26/172	15.1
β-Adrenergic Therapy		
No Therapy	25/172	14.5
< 160 mg. q. d.	56/172	32.6
≥ 160 mg. q. d.	91/172	52.9
Cardiac Enlargement	32/172	18.6
Mitral Insufficiency	22/172	12.8
Ejection Fraction		
≥ 0.60	109/172	63.4
0.30-9.59	62/172	36.0
< 0.30	1/172	0.6
Number of Vessels Diseased		
One Vessel	22/172	12.8
Two Vessels	44/172	25.6
Three Vessels	106/172	61.6
Left Main Coronary Artery Disease	20/172	11.6

Results

The operative mortality of patients having coronary artery grafts was 5.2% (9 deaths of 172 patients). Analysis of the medical history data by contingency table chi-square (x^2) showed that mortality was not affected by peripheral vascular disease, diabetes, lipid abnormalities, smoking, family history of atherosclerotic heart disease, hypertension, obesity, or previous myocardial infarction (old or recent). However, age greater than or equal to 60 years, and female sex appeared to be related to mortality, while class IV angina and accelerated angina pattern were definite risk factors. Patients under 50 years old experienced no mortality while those 60 years or older had a 9.6% mortality; females had three times the death rate (10.5%) of males (3.7%) undergoing bypass without combined procedures. Table 2 indicates that patients with either class IV angina or the more selected group with accelerated angina pectoris had statistically significantly higher death rates than those without.

Analysis of factors related to the functional status of the left ventricle revealed that operative mortality was not affected by left ventricular end diastolic pressure, ejection fraction, heart size, or mitral insufficiency. A history of congestive heart failure, however, appeared to be a risk factor for operative mortality. Patients with such a history had nearly three times the likelihood of dying of those without (Table 2).

Table 2

PREOPERATIVE RISK FACTORS FOR OPERATIVE MORTALITY IN 172 PATIENTS WITH ANGINA PECTORIS

	Number of Patients		Mortality (%)		
	With Factor	Without Factor	With Factor	Without Factor	P
Angina Class IV	78	94	7.0	2.0	< 0.05
Accelerated Angina Pectoris	27	135	14.8	3.0	< 0.01
Left Main Coronary Artery Disease	20	152	25.0	2.6	< 0.001
Age ≥ 60	52	120	9.6	3.3	< 0.10
Female	38	134	10.5	3.7	< 0.10
CHF	26	146	11.5	4.1	< 0.10
Three Vessel Disease	106	66	7.5	1.5	< 0.09

Operative mortality appeared to be directly related to the number of vessels diseased, though statistical significance was not achieved. Patients with one-vessel disease (N=22) had no mortality, while those with two-vessel (N=44) and three-vessel (N=106) disease had 2.3% and 7.5% mortalities, respectively. Patients with disease of the left main coronary artery had ten times the operative risk of those without such disease (Table 2).

The analysis of operative factors, indicated that neither the number of grafts nor the completeness of revascularization was related to mortality. Patients with a cardiopulmonary bypass time of 120 minutes or greater, however, had a 50% mortality compared with no mortality for those under 90 minutes, and 2.7% for those between 90 and 119 minutes (Table 3).

Table 3

OPERATIVE MORTALITY BY DURATION OF CARDIOPULMONARY BYPASS

		Deaths	
Group	Total Patients	Number	Per Cent
All Groups	172	9	5.2
$<$ 90 min.	119	0	0
90-119 min.	37	1	2.7
$\geq$ 120 min.	16	8	50.0

$x_2^2 = 71.71$ $p < 0.001$

Hammond and Poirier's earlier series of 100 patients at Yale-New Haven Hospital had an operative mortality of 9%.[9] Since the current mortality is 5.2%, it appears that increased experience with the bypass procedure has reduced the operative risk at Yale-New Haven Hospital though the difference does not yet achieve statistical significance.

In summary, a number of risk factors for operative mortality were found to be important in the group of patients undergoing myocardial revascularization surgery without combined procedures. They include accelerated angina pectoris and class IV angina, left main coronary artery disease, and cardiopulmonary bypass time of 120 minutes or greater. Less important risk factors were age 60 years or more, female sex, a history of congestive heart failure, and three-vessel disease. Analysis in pairs of those factors affecting mortality revealed that the greatest separation of risk groups was achieved by the pairs of 1) cardiopulmonary bypass time and left main coronary artery disease, and 2) cardiopulmonary bypass time and stability of angina. The lowest risk group in this study is, the 142 patients without left main coronary artery disease, and with a bypass time of less than 120 minutes. No patients in this group died.

Discussion

Coronary artery bypass surgery may offer great promise for treatment of ischemic heart disease.[5, 6, 7, 8, 9] At the present, data concerning the short-term benefits of direct myocardial revascularization have been amply documented.[5-7] However, the long-term results are limited[8] due to the relatively short time that this operation has been performed. Reluctance in recommending surgery is partially related to the risks of open heart surgery. This study addresses those particular factors which affect operative mortality. Clinical, anatomic, hemodynamic and operative characteristics of the study population were analyzed.

The overall operative mortality of 5.2% compares favorably with the range of 2.3% to 12% among 15 other surgical series .[8, 9-22] Three factors were found to be significantly associated with operative mortality—1) left main coronary artery disease; 2) class IV angina and accelerated angina pectoris; and 3) duration of cardiopulmonary bypass of 120 minutes or more.

The first major risk factor, left main coronary artery (LMCA) disease, has been found in several other studies to be associated with increased mortality in coronary artery bypass operations.[10, 16, 23-25] The mortality in these studies ranged from 10.7% to 31%. In our study population (Table 2) the mortality was 25%. Oldham et al.[16], with an operative mortality of 31% for 26 patients with LMCA disease, found a 40% mortality among 15 patients receiving a graft to either the left anterior descending coronary artery (LAD) or the left circumflex (LCFX), but not to both. The eleven patients receiving grafts to both arteries had only an 18% mortality. Oldham et al. argued from these data that two grafts to bypass the LCMA lesion are better than one. This conclusion must be questioned since, in their patients with only one graft, they failed to take into consideration the presence or absence of additional disease of the LAD or the LCFX between the graft anastomosis site and the other arterial branch. In the present series of 20 patients with LMCA disease, five had additional LAD and/or LCFX disease and received only an LAD graft. There were two deaths (40% mortality in this group). The two patients who had no additional disease of the LAD or LCFX with only an LAD graft did not die, but the one patient with two grafts but no additional disease did. Among the remaining 12 patients with additional disease and grafts to both the LAD and the LCFX, there were only two deaths. The numbers are too small to draw any definite conclusions, but they suggest that one graft cannot supply blood to both LAD and LCFX if there is additional proximal LAD or LCFX disease. LMCA disease alone may not be the only factor leading to the decision to place two grafts.

Class IV angina and accelerated angina pattern both increased the operative risk by four and five times respectively over that of the remaining patients. There are conflicting reports on the significance of the severity and the stability of angina. Some authors finding these symptoms to be important[12, 26, 27] and others finding them not to be associated with operative mortality.[16, 18, 19] It is possible that the variation in definition of stability of angina explain some of the differences.

The other major factor affecting operative mortality for this study population was duration of cardiopulmonary bypass (Table 3). Mortality for patients on bypass less than 90 minutes, 90-119 minutes, and 120 minutes or more were 0% (N=119), 2.7% (N=37), and 50.0% (N=16) respectively. Previous studies do not mention prolonged bypass time as a factor in increased mortality.

All 16 patients with cardiopulmonary bypass time longer than 120 minutes, had diffuse disease of one or more coronary vessels. These coronary arteries received grafts with great technical difficulty thereby prolonging the cardiopulmonary bypass time to undesirable levels.

Four factors were found to have an influence on early mortality, but did not achieve statistical significance. These minor risk factors were: 1) female sex; 2) age 60 years or more; 3) a history of congestive heart failure; and 4) the number of diseased vessels. Females had three times as great a risk of dying as did males, but the sample was not large enough to achieve significance ($p < 0.09$). Hall et al.[11] and Sheldon et al.[8] had similar results, though Collins et al.[19] did not. Although females appear to have an increased operative risk, there is as yet no explanation for this phenomenon. Patients 60 years of age or more had a 9.6% mortality while those under 60 years of age had 3.3% mortality (Table 2). This is in agreement with Hall et al.,[11] who found higher risks for older patients, though Collins et al.[19] did not. With the exception of congestive heart failure, measures of left ventricular functional status were not related to operative mortality. Patients with congestive heart failure (N=26) had nearly three times the operative risk of those without (11.5% versus 4.1%), but statistical significance was not achieved (Table 4). Several reports [16, 19, 28] claimed ejection fraction as a factor predicting operative mortality, but at least one of these studies[19] had a biased sample. Collins et al.[19] had 15 patients with ejection fractions less than 0.40, of whom seven died, but we note that six of the seven were operated on for cardiogenic shock. The removal of these six from consideration would mean that low ejection fraction was no longer significantly associated with higher mortality. The reason that low ejection fraction and other measures of impaired left ventricular status were not significant in our study is that most patients with impaired left ventricles either had the additional procedure of valve replacement or aneurysm surgery. Patients with these combined procedures do not appear in the present study.

The fourth minor risk factor for operative mortality was the number of vessels diseased. Two other studies reported this finding, [12, 13] and two reported no relationship. [16, 19]

Because there were only nine patients with recent myocardial infarctions (one death), this factor was not associated with a significantly increased mortality. A larger group of patients would be necessary to better explore the possibility of a relationship.

Conclusions

This study was a prospective study in retrospect, of 172 consecutive patients undergoing coronary artery bypass grafting without combined surgical procedure for ischemic heart disease at Yale-New Haven Hospital from July 1974 to July 1975. The mortality rate was 5.2%. Contingency table chi-square analysis of the relationship between operative mortality and various pre-operative and operative factors allowed definition of "risk factors" for operative mortality. Those factors found to be signficantly associated with early mortality were: 1) Class IV angina pectoris and accelerated angina pectoris; 2) left main coronary artery disease; and 3) duration of cardiopulmonary bypass of 120 minutes or longer. Other factors possibly affecting early mortality were: 1) female sex; 2) age, 60 years or more; 3) congestive heart failure; and 4) the number of diseased vessels.

REFERENCES

1. Effler DB, Favaloro RG, Groves LK: Coronary artery surgery utilizing saphenous vein graft techniques: clinical experience with 224 operations. J Thorac Cardiovasc Surg 59:147, 1970.
2. Dunkman WB, Perloff JK, Kastor JA, et al: Medical perspec-

tives in coronary artery surgery—a caveate. Ann Int Med 81:817, 1974.

3. Ross RS: Ischemic heart disease: an overview. Am J Card 36:496, 1975.
4. Greene DG, Carlisle R, Grant G, Bunnel IL: Estimation of left ventricular volume by one plane cineangiography. Circulation 35:61, 1967.
5. Cannom DS, Miller DC, Shumway NE, Fogarty TJ, Daily PO, Hu M, Brown B, Harrison DS: The long-term follow-up of patients undergoing saphenous vein bypass surgery. Circulation 49:77, 1974.
6. McNeer JF, Starmer CF, Bartel AG, Behar VS, Kong Y, Peter RH, Rosati RA: The nature of treatment selection in coronary artery disease. Experience with medical and surgical treatment of a chronic disease. Circulation 49:606, 1974.
7. Bartel AG, Behar VS, Peter RH, Orgain ES, Kong Y: Exercise stress testing in evaluation of aortocoronary bypass surgery. Report of 123 patients. Circulation 48:141, 1973.
8. Sheldon WC, Rincon G, Pickard AD, Razavi M, Cheanvechai CH, Loop FD: Surgical treatment of coronary artery disease: Pure graft operations with a study of 741 patients followed 3-7 years. Prong in Cardiovasc Dis 18:237, 1975.
9. Hammond GL, Poirier RA: Early and late results of direct coronary reconstructive surgery for angina. J Thorac and Cardiovasc Surg 65:127, 1972.
10. Cooley DA, Dawson JT, Hallman GL, Sandiford FM, Wukasch DC, Garcia E, Hall RJ: Aortocoronary saphenous vein bypass. The Annals of Thorac Surg 16:380, 1973.
11. Hall RH, Dawson JT, Cooley DA, Hallman GL, Wukasch DC, Garcia E: Coronary artery bypass. Circulation 48:III, 146, 1973.
12. Anderson RP, Rahimtoola SH, Bonchek LI, Starr A: The prognosis of patients with coronary artery disease after coronary bypass operations. Circulation 40:274, 1974.
13. Morris GC, Reul GJ, Howell JF, Crawford ES, Chapman DW, Beazley HL, Winters WL, Peterson PK, Lewis JM: Follow-up results of distal coronary artery bypass for ischemic heart disease. Am J Cardiol 29:180, 1972.
14. Hutchinson JE, Green GE, Mekhjian HA, Gallozzi E, Cameron A, Kemp HG: Coronary bypass grafting in 476 patients consecutively operated on. Chest 64:706, 1973.
15. Adam M, Mitchel BF, Lambert CJ, Geisler GF: Long-term results with aorta-to-coronary artery bypass vein grafts. Annals of Thorac Surg 14:1, 1972.
16. Oldham HN, Kong YL, Bartel AG, Morris JC, Behar VS, Peter RH, Rosati RA, Young G Jr, Sabiston DC: Risk factors in coronary artery bypass surgery. Arch Surg 105:918, 1972.
17. Kaiser GC, Barner HB, Willman VL, Mudd G, Westura EW, Alves LE: Aortocoronary bypass grafting. Arch Surg 105: 319, 1972.
18. Geha AS, Krone RJ, McCormick JR, Baue AE: Selection of coronary bypass. J of Thorac and Cardiovasc Surg 70:414, 1975.
19. Collins JJ, Cohn LH, Sonnenblick EH, Herman MV, Cohn PF, Gorlin R: Determinants of survival after coronary artery bypass surgery. Circulation 48-49: III; 132, 1973.
20. Green GE: Internal mammary artery to coronary artery anastomosis: three year experience with 165 patients. Annals of Thorac Surg 14:260, 1972.
21. Barboriak J, Rimm A, Anderson A, Walker J. Flemma R: Risk factors and mortality in patients with aorto-coronary bypass operation. Circulation 52: II; 155, 1975.
22. Najmi M, Ushiyama K, Blanco G, Adam A, Segal BL: Results of aortocoronary artery saphenous vein bypass for ischemic heart disease. Am J Cardiol 33:42, 1974.
23. Zeft, HJ, Manley JC, Huston JH, Tector AJ, Auer, JE, Johnson WD: Left main coronary artery stenosis: Results of coronary bypass surgery. Circulation 49:68, 1974.
24. Cohen MV, Gorlin R: Main left coronary artery disease. Clinical experience from 1964-1974. Circulation 52:275, 1975.
25. DeMots H, Bonchek LI, Rosch J, Anderson RP, Starr A, Rahimtoola SH: Left main coronary artery disease. Risks of angiography, importance of coexisting disease of other coronary arteries and effects of revascularization. Am J Card 36:136, 1975.
26. Bertolasi CA, Tronge JE, Carreno CA, Jalon J, Ruda M: Unstable angina: Prospective and randomized study of its evolution, with and without surgery. Am J Card 33:201, 1974.
27. Scanlon PJ, Nemickas R, Moran JF, Talano JV, Amirparviz F, Pifarre R: Accelerated angina pectoris: Clinical, hemodynamic, arteriographic, and therapeutic experience in 85 patients. Circulation 47:19, 1973.
28. Kay JH, Redington JV, Mendez AM, Zubiate P, Dunne EF: Coronary artery surgery for the patient with impaired left ventricular function (abst.) Circulation 46:II, 49, 1972.

Vaginal Evisceration Following Total Abdominal Hysterectomy

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ABSTRACT—A 36-year-old black female presented with vaginal evisceration following a total abdominal hysterectomy. This is the fifth report of this complication in the literature. Vaginal evisceration is rare and most often occurs in post-menopausal women who have had vaginal surgery, often for pelvic relaxation.

Most reported vaginal eviscerations have occurred in post menopausal women who had undergone prior vaginal surgery, most often for the repair of pelvic relaxation. Rolfs[1] review in 1970, described 16 cases of vaginal evisceration, to which he added seven more. The majority of these occurred after vaginal surgery and in women over 48 years of age.

In 1958, Weisse, et al[2] reported a case of rupture of the vaginal apex following abdominal hysterectomy. There have been only three additional cases reported in the English literature since that time,[3-5] the following case represents the fifth such occurrence.

Case Presentation

A 36-year-old black female, gravida 9, para 8, abortion 1, was seen on May 6, 1975, with the complaint that "her bladder had dropped." Examination revealed approximately 30 cm. of small bowel peristalsing in the vagina. The entry point was a 4 cm. defect at the vaginal apex, through which the bowel could be partially reduced. Remaining physical examination and vital signs were within normal limits.

Past history was positive for rheumatic fever at age 13, a cone biopsy for diagnosis and treatment of carcinoma in situ in 1962, and a total abdominal hysterectomy and bilateral salpingo-oophorectomy for chronic pelvic inflammatory disease and pelvic pain in November, 1974. The hysterectomy had been uneventful, and there was no evidence of an active inflammatory process noted during the procedure. The vaginal cuff was not closed, but was covered by peritoneum as is customary at this hospital. The patient's entire post-operative course had been completely normal five days prior to the present admission. 48 hours following coitus, she noted the leakage of a small quantity of clear fluid per vagina. There had been no bleeding, fever, or gastro-intestinal symptoms. The pressure sensation which prompted medical evaluation had begun the morning of admission.

An abdominal approach was elected because the bowel could not be reduced easily. No peritoneum covered the vaginal cuff through which a portion of the small intestine had prolapsed. There was no evidence of laceration or bleeding. There was considerable inflammation around the vaginal cuff and in the cul-de-sac, with loops of small bowel adherent to each other and to the posterior wall of the vagina. After lysis of adhesions and exposure of the posterior vagina, the bladder was dissected free from the anterior vagina. A purse string suture was placed at the vaginal apex, followed by two figure of eight sutures, which provided adequate closure. The peritoneum was closed over the cuff. A Moschowitz culdoplasty was not attempted because the tissue was too friable.

Post-operatively the patient was continued on the ampicillin and kanamycin which had been initiated prior to surgery. She was free from gastro-intestinal symptoms at the time of discharge, after having had an unremarkable ten day post operative course. Discharge instructions limited heavy exercise and prohibited intercourse for eight weeks. Follow-up examination at three months showed the vaginal apex to be well healed and well supported.

Discussion

Vaginal evisceration following surgery is uncommon in any event, but is extremely rare after simple abdominal hysterectomy. We encountered several features which were common to the other four reported cases (see Figure 1). All five patients with evisceration post abdominal hysterectomy are younger than those patients described with evisceration following vaginal surgery.[1, 6-8, 9-11] Three of the five patients had procedures done for cervical cancer, and two of these had wide vaginal cuffs removed.

Repair of the defect is nearly evenly split between abdominal and vaginal approaches. The abdominal route, in our case, was a fortunate choice, as there was sufficient inflammation, tissue friability, and adherence of bowel to the vaginal wall, to have made correction from below difficult. In addition, we feel that abdominal repair permits better evaluation of the condition of the bowel, although the tolerance of the bowel to exposure and surgical manipulation in these cases seems to be remarkable.

Conclusion

A fifth case of vaginal evisceration following total abdominal hysterectomy and its successful repair using an abdominal approach is reported.

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The opinions and views stated in this paper are those of the authors and in no way reflect the conclusions of the United States Air Force or the Department of Defense.

Figure 1

Author	*Age*	*Prior Surgery*	*Time of Evisceration*	*Site of Evisceration*	*Repair*
Weisse, et al[2]	39	Total abdominal hysterectomy	Approximately 3 years. Patient fell from platform. Vaginal bleeding present.	Prolapse of omentum through vaginal laceration.	
Ranney[4]	21	Total abdominal hysterectomy for pre-invasive cervical carcinoma. 2 cm. vaginal cuff.	53rd post operative day. Pelvic pain and vaginal bleeding after coitus. Shock on admission.	Suture line disruption but no prolapse.	Abdominal
McNellis, et al [3]	49	Cone biopsy and total abdominal hysterectomy for pre-invasive cervical carcinoma. Wide vaginal cuff. Post-operative temperature.	3½ months. Vaginal bleeding after douche.	Prolapse of small bowel through disrupted scar.	Vaginal
Richards[5]	25	Total abdominal hysterectomy and bilateral salpingo-oophorectomy. Temperature 39.4°C. post operatively.	109 days	Prolapse of omentum through open cuff.	Abdominal
Present case	36	Total abdominal hysterectomy and bilateral salpingo-oophorectomy.	6 months. Post coital onset.	Prolapse of small bowel through open vaginal cuff.	Abdominal

REFERENCES

1. Rolf BB: Vaginal evisceration. Am J Obstet Gynecol 107:369-375, 1970
2. Weisse, HA, Watson M, Steffan LJ: Traumatic rupture of the apex of the vagina twenty months following abdominal hysterectomy. Am J Obstet Gynecol 76:1207-1208, 1958
3. McNellis D, Torkelson L, McElin TW: Late post-operative vaginal vault disruption. Am J Obstet Gynecol 94:543-545, 1966
4. Ranney B: Post-operative vaginal vault disruption. Obstet Gynecol 23:793-794, 1964
5. Richards BC: Vaginal evisceration. Am J Obstet Gynecol 123:915-916, 1975
6. Anneberg AD: Ruptured enterocoele. Obstet Gynecol 24:893-894, 1964
7. Fox PF, Kowalczyk AS: Ruptured enterocoele. Am J Obstet Gynecol 23:793-794, 1964
8. Hunter RE, Jahadi R, Chandler JP: Spontaneous rupture of enterocoele. Obstet Gynecol 36:835-839, 1970
9. Scott JS: Rupture of the vaginal vault with evisceration following vaginal hysterectomy. J Obstet Gynaecol Brit Emp 62:445-446, 1955
10. Symmonds RE, Pratt JH, Ellis FH: Ruptured enterocoele. Am J Obstet Gynecol 74:1150-1153, 1957
11. Thompson W: A case of intestinal obstruction associated with a ruptured enterocoele. J Obstet Gynaecol Brit Emp 55:664, 1948

Treatment of Osteoporosis of Aging with 1 Alpha-hydroxycholecalciferol

Seven patients with osteoporosis of aging were treated with synthetic 1 alpha-hydroxycholecalciferol (1 alpha-HCC) for three to four months. It was given orally, 2 micrograms with a supplement of 1 gram of calcium. There was striking clinical improvement in 6 of the 7 patients. Increased bone formation and mineralization were seen on iliac-crest bone biopsy, and this was supported by an increased osteoblastic activity demonstrated by histo-chemical measurement of alkaline-phosphatase activity. Bone histology showed reduced bone resorption and there was reduced urinary excretion of total hydroxyproline. Photon absorptiometry of the forearm agreed with histologic findings, showing significant increase in bone mineral content. Serum-calcium rose in all patients; one developed severe transient hypercalcemia. Urinary excretion of calcium and magnesium increased significantly. Serum concentrations of 1 alpha-HCC and parathyroid hormone were not significantly affected by the treatment. Lund, B., et al.: Lancet 2: 1168 (Dec. 13) 1975.

Hereditary Oculopharyngeal Dystrophy

A Cause of Dysphagia in French-Canadians

Lee Sataline, M.D. and Eugene D'Angelo, M.D.

Difficulty in swallowing, dysphagia, may result from pharyngeal and/or esophageal disease. Often the practitioner is unable to discern whether the dysphagia results from an inability to complete the voluntary act suggesting that the problem resides in the pharynx; or whether it occurs later in the swallowing process and is due to impaired passage through the esophagus.

Gastroenterological consultation may be sought in such cases. Because of the relative ease with which fiberoptic panendoscopy may be performed, careful evaluation of the case may be thwarted by the desire to "look and photograph". Spiro had previously commented on the changes that modern technology has made on the clinical practice of gastroenterology.[1,2]

The following case report describes a patient with an hereditary swallowing disorder tending to occur more frequently in certain ethnic groups, and with which many generalists and specialists alike may not be familiar. It underscores the tenet that the enthusiasm to endoscope a patient should never preclude a thorough history, physical examination and an appreciation of the patient's background.

Case Report

A 72 year old, unmarried, French-Canadian female was brought to the hospital because of difficulty in swallowing. Perhaps because of the language problem it was thought that the patient had just recently developed the dysphagia: An esophageal obstruction was suspected and an endoscopic consultation was requested.

With subsequent questioning of the patient she related with her heavily accented English how "for long time" the food would "bunch up" as she pointed to her neck. With patience and perseverance it was ascertained that she actually had no pain nor blockage but rather an inability to complete the act of swallowing. Only within the past month, however, had her food intake been so compromised that she began to lose weight. She had no other complaints, and denied any prior illnesses except for an episode of "pleurisy" two years previous.

Physical examination revealed a very spry, pleasant and cooperative lady with normal vital signs. The one outstanding physical abnormality was bilateral ptosis of her eyelids which she could only partially elevate in spite of intense wrinkling of her forehead (Figure 1). When we commented on this finding the patient related how she acquired the trait from her mother whose two sisters and brother were similarly afflicted. The patient herself was one of seven siblings. Two had died at relatively young ages and since she had left her native Maine many years previous the status of the others was unknown. However, the fifty year-old daughter of one sister was known to have had recent corrective surgery for bilateral lid ptosis.

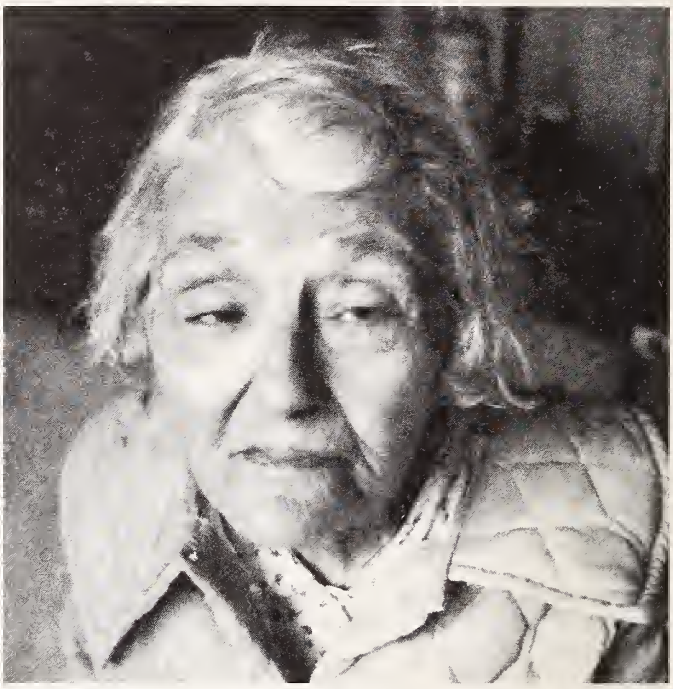

Figure 1

Photograph showing persistent lid ptosis in spite of upward gaze.

Subsequent radiographic studies demonstrated impaired emptying of the barium from the pyriform sinuses with spillage into the trachea (Figure 2). An endophonium (Tensilon) test was negative, and myotonia was never demonstrated. Laboratory studies including the C.B.C., urine analysis, electrolytes, glucose, B.U.N., L.D.H., S.G.O.T., C.P.K., T3, T4 and protein electrophoresis were within normal limits. Her electrocardiogram was also normal.

Comments

The history and clinical manifestations in this case substantiate a diagnosis of familial oculopharyngeal dystrophy, a progressive hereditary disorder usually beginning late in life (e.g. after 50 years of age). First described by Taylor[3] more than sixty years ago, few reports appeared in the literature until the sixties.[4-7] It has been well documented in French-Canadians[5,6] although there have been reports of its occurrence in other ethnic groups.[4,8] The disease appears to be transmitted in an autosomal dominant fashion and may be but a variant of ocular myopathy and/or myotonia dystrophica.[9,10]

In more advanced cases electromyographic studies give results consistent with a myopathic process.[4,5,6] Esophageal motility studies demonstrate small, nonperistaltic contractions in the upper third (striated muscle portion) of the esophagus[6] often associated

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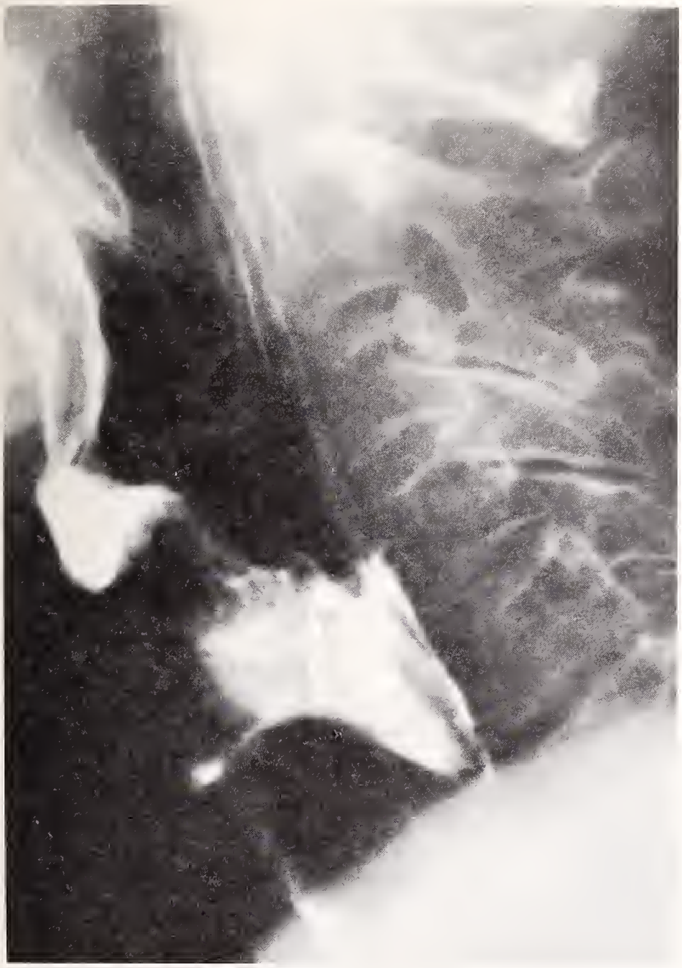

Figure 2

Barium swallow demonstrating retention of the barium in the pyriform sinuses with spillage into the trachea.

with poor pharyngeal contractions.[6,10] Serum muscle enzymes are generally reported to be normal. Histological examination of the involved musculature shows non-specific changes with fibrosis, atrophy and alignment of the sarcolemmal nuclei.[4,6,12]

Since the dysphagia may precede the development of ptosis by several years, and because the patients are older and may have a language difficulty expressing themselves, physicians, especially those practicing in areas heavily populated with French-Canadians, must be alert to this clinical disorder. Spiro[1] seems to have epitomized the situation when he wrote: "It may be pertinent to remind physicians who have abandoned unseen things for those they can photograph that a diagnosis by a physician who is not a mere technician still involves knowing why and who as much as where and what."

REFERENCES

1. Spiro, HM: Visceral Viewpoints—Moynihan's Disease? New Eng J Med 291:567, 1974.
2. Spiro HM: My kingdom for a camera—Some comments on medical technology. New Eng J Med 291:1070, 1974.
3. Taylor, EW: Progressive vagus-glossopharyngeal paralysis with ptosis: contribution to a group of family diseases. J Nerv Ment Dis 42:129, 1915.
4. Victor, M, Hayes, R and Adams, RD: Oculopharyngeal muscular dystrophy. New Eng J Med 267:1278, 1962.
5. Barbeau, A: The syndrome of hereditary late onset ptosis and dysphagia in French-Canada, in Progressive Muskeldystropie, Myotonie and Myasthenie. E Kuhn, Editor, Springer-Verlag-Berlin, 1966 pp 102-109.
6. Murphy, SJ and Drachman, D: Oculopharyngeal syndrome. JAMA 203: 1003, 1968.
7. Weitzner, S: Changes in the pharyngeal and esophageal musculature in oculopharyngeal muscular dystrophy. Am J Dig Dis 14: 805, 1969.
8. Myrianthopoulos, NC and Brown, IA: A genetic study of progressive spinal atrophy. Am J Hum Genet 6:387, 1954.
9. Schotland, DL and Rowland, LP: Muscular dystrophy. Arch Neurol 10:433, 1964.
10. Roberts, AH and Bamforth, J: The pharynx and esophagus in ocular muscular dystrophy. Neurol 18:645, 1968.

Travelers' Diarrhea in Mexico

Travelers' diarrhea developed in 59 (49 percent) of 121 people attending a medical congress in Mexico City in October, 1974. The median duration of illness was five days; onset was a median of six days after arrival. An etiologic agent was found in 63 per cent of all study participants. The most common cause was enterotoxigenic Escherichia coli of different, non- "enterotoxigenic" serotypes. Other causative pathogens were salmonella, invasive E. coli, shigellae, Vibrio parahaemolyticus, Guardia lamblia, and the human reovirus-like agent. Eating salads containing raw vegetables was associated with E. coli infection ($P = 0.014$). Travelers' diarrhea in Mexico is a syndrome caused by a variety of pathogens, with Escherichia coli the most common. Merson, M.H., et al.: New England J. Med. 294: 1299 (June 10) 1976.

Melanomas: Fascinating Tumors

James J. Nordlund, M.D. and Aaron B. Lerner, M.D.

Melanomas, the black cancers arising from pigment cells, have earned a sinister reputation among physicians and laymen because they often are resistant to all attempts at treatment. In the last few years investigators and clinicians have gotten new ideas about this cancer and its treatment. Many patients with melanomas have now been cured. One unique characteristic of melanomas is their association with vitiligo—a relationship that could provide important clues to finding a cure for patients with multiple metastases. We will review some aspects about the behavior of melanomas as well as the difficulties encountered in making a correct diagnosis and in providing proper treatment. In this article and in a subsequent one on vitiligo, we want to give the rationale for our studies on melanomas and vitiligo in the Department of Dermatology at Yale University.

One might guess that people who are dark in color have more melanomas than those who are light. However, the opposite is true. People with fair complexions, blond or red hair, freckles, and a tendency to sunburn, e.g., people of Celtic origin whose pigment cells have a limited capacity to synthesize melanin, most frequently develop melanomas. Melanomas do occur in Blacks but the incidence is low when compared to whites. In Blacks the tumors usually arise from the mucous membranes or the sides of the palms and soles, areas which are lightly pigmented even in the blackest individual. How the capacity of a cell to produce melanin is related to or alters its susceptibility to oncogenic agents and malignant transformation is not known.

Ultraviolet light in sunlight is one factor involved in the induction of melanomas. The incidence of melanomas in any geographic area is directly proportional to the intensity of the ambient sunlight and the duration that those of high risk are exposed to the light. In Australia, a land of immigrant Celts and intense sunlight, the incidence of melanomas is 8 per 100,000 population. They have a veritable epidemic when compared to the 1-2 melanomas per 100,000 population we have in this country. The rate of attack in Australia is highest at latitudes near the equator, and lowest at latitudes far removed from the hot equatorial sun. The incidence of melanomas in the United States has doubled during the last decade from 1 to 2 per 100,000. This increase has been attributed to the newly acquired beach and boating customs of our conspicuously consuming citizenry. Melanomas are most commonly found on areas of skin that are exposed to sunlight such as the calves of women and the faces and backs of men. The buttocks and genitalia are infrequent sites on which to find a melanoma.

Genetic and epigenetic factors also predispose patients to develop melanomas. Many members of some families develop multiple primary melanomas.

Some pigmented nevi exhibit a high incidence of transformation into melanomas. Only 3% of the population are born with pigmented nevi. Acquired moles usually begin to appear on the skin within a few months after birth. Their number increases until early adulthood (3rd decade) when they begin to regress. During childhood most moles are junctional nevi, i.e, flat, dark brown spots (Fig. 1). Junctional nevi are composed of nests of melanocytes that are confined entirely above the epidermal-dermal junction. During adolescence junctional nevi begin to lose some of their pigment and become elevated to form compound nevi—lesions in which pigment cells are present in both the epidermis and dermis (Fig. 1). Some of the epidermal nevus cells may have migrated into the dermis. With time some compound nevi may evolve to become dermal nevi, lesions which are non-pigmented and protuberant (Fig. 1). The pigment cells of dermal nevi are confined entirely to the dermis. Melanoma comes only from junctional or compound

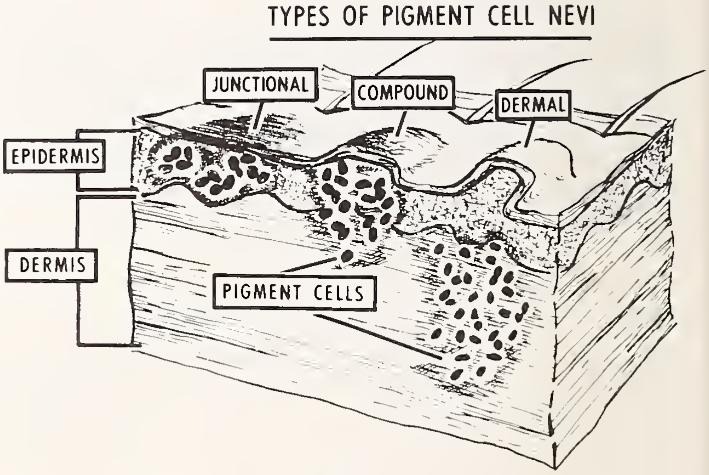

Figure 1
Schematic drawing of three common types of acquired pigment cell nevi. The junctional nevus is dark and flat. The compound nevus has lost some of its color and the dermal nevus is frequently non-pigmented. The nevi became elevated as the cells migrate into the dermis.

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nevi. The rate of malignant degeneration for pigmented nevi is estimated at 1 melanoma per 20,000,000 moles. More than 50 percent of patients with melanomas state that the tumors arose from preexisting nevi. It has not been possible to figure out whether or not all melanomas came from nevi.

Congenital nevi, those nevi present at birth, are biologically different from acquired moles. Many congenital nevi are very large and cover most of the trunk or an extremity (Fig. 2). Because 5 to 20 percent of these large congenital nevi degenerate into melanomas these lesions should be excised prophylactically if possible. But many congenital nevi are small, i.e., 1-2cm in diameter. Some observers believe that small congenital nevi, those less than 5cm in diameter, are not pre-malignant; others believe they are. We have observed the development of melanomas in some of the small nevi. No data are available however, on the incidence of melanomas that arise from small congenital nevi. Thus there is no consensus among experts whether or not these small nevi should be removed prophylactically. All congenital nevi of any size deserve frequent and careful inspection.

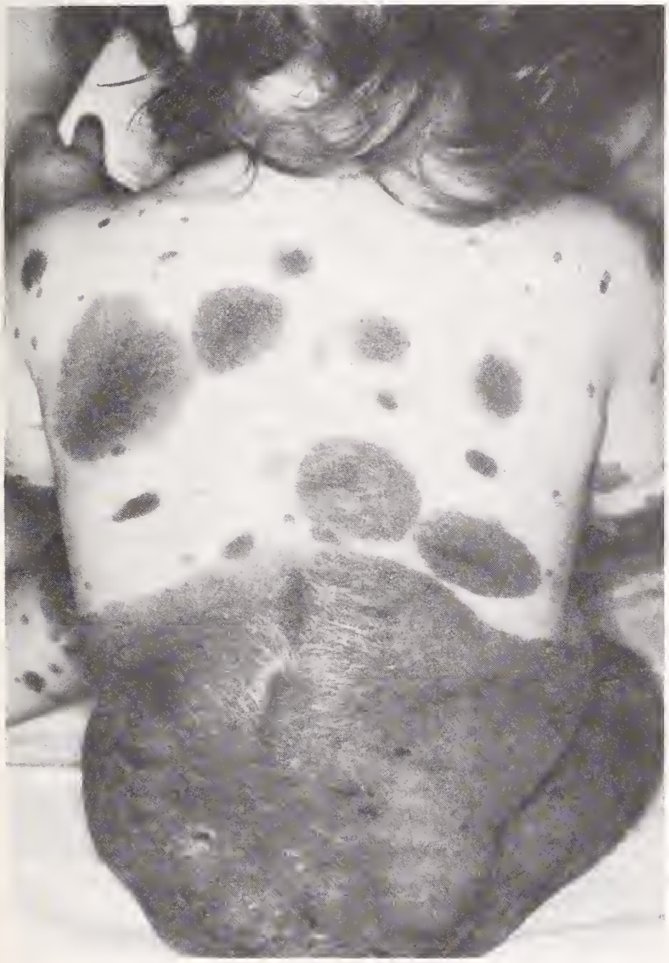

Figure 2
An extensive bathing trunk nevus and many satellite lesions were present from birth. These large nevi carry a high risk of malignant degeneration.

Clinical evaluation of nevi, congenital or acquired, is always difficult. Melanomas detected early are curable but there are no pathognomonic early signs of malignancy. When doubt arises about a given nevus, a biopsy must be taken and the histology of multiple sections must be studied carefully by pathologists attuned to the variations in the appearance of melanomas and nevi. In most instances a simple excision is the best way to obtain a biopsy. However, it is often necessary to get an incisional biopsy because the lesion is too large to be removed by a simple process. An incisional biopsy does not compromise the prognosis for the patient.

The prognosis for a patient with a melanoma depends on two major factors. First is the level of its invasion at the time of its removal, and second is its biologic type. Level I melanomas, those whose malignant cells are confined to the epidermis (Fig. 3) are curable by excision. Melanomas whose cells have penetrated to the upper papillary dermis (Level II) are curable for 95% of the patients. Melanomas extending to the deep papillary dermis (Level III), reticular dermis (Level IV), or subcutaneous fat (Level V) carry a more grim prognosis. Less than half of these patients with deep tumors are alive at the end of five years.

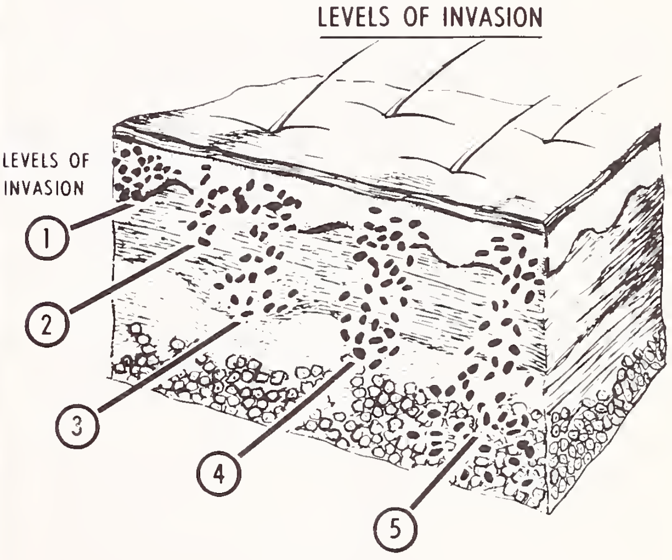

Figure 3
Levels of invasion of melanoma cells. Prognosis for cure following surgical excision depends to a large extent on the depth of invasion of the cells at time of surgery.

Melanomas do not all exhibit the same behavior. Three distinct types described clinically and pathologically are lentigo maligna, superficial spreading, and nodular melanomas. One form of melanoma does not evolve into another. The biologic behavior, prognosis and treatment depend on the proper identification of the type of melanoma as well as the level of its invasion. Lentigo maligna (Fig. 4) is the least common but most benign variety, comprising about 5% of documented pigment cell cancers. They are found most commonly in elderly individuals and are virtually always on sun-exposed areas especially the face. These melanomas are non-aggressive and frequently other diseases which afflict the elderly bring about the patient's demise before the tumor spreads beyond the skin. As seen histologically a lentigo maligna begins and usually remains for many years as a melanoma *in situ*, all the tumor cells being confined to the epidermis (Level I). The lesion is non-palpable until the malignant cells begin to invade the dermis and produce a visible nodule. The tumor is then called a lentigo maligna melanoma. Only on rare occasions do the cells penetrate the subcutaneous fat and metastasize to kill the patient. A lentigo maligna usually begins as a faun colored macule which slowly enlarges. As it spreads one or more edges turn dark brown or black; other edges regress and turn grey to white. These intermixed regressing and spreading margins give the lentigo maligna its distinctive clinical appearance.

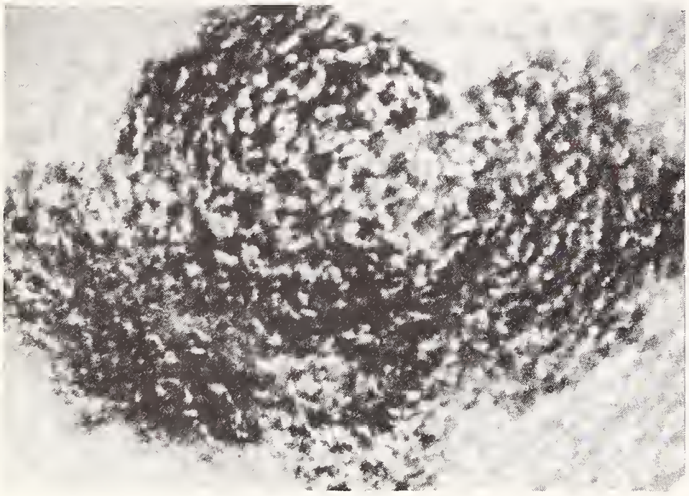

Figure 4
Lentigo maligna is a flat lesion with irregular borders and colors. Some areas are black, others brown, grey or white.

A superficial spreading melanoma (Fig. 5) is a different and more aggressive cancer. The name is deceptive because it suggests that the melanoma is always superficial and therefore not dangerous. That is not so. The cancer usually begins on a sun-exposed part of skin from pigment cells that are above the epidermal basement membrane. For several months to a year cancer cells spread horizontally within the epidermis. During this early stage removal by excision results in a cure. If surgery is not carried out the superficial spreading melanoma spreads vertically down into the dermis and the subcutaneous fat and then metastasizes. Thus a delay in the recognition or treatment by the physician can be fatal to the patient. Approximately 70% of all melanomas are of this variety. The patients are usually in the 5th or 6th decade of life. These lesions have raised spreading edges and great variation in color. Shades of red and blue are haphazardly intermixed with black, white and brown all within one lesion. The surface is often verrucous or lumpy.

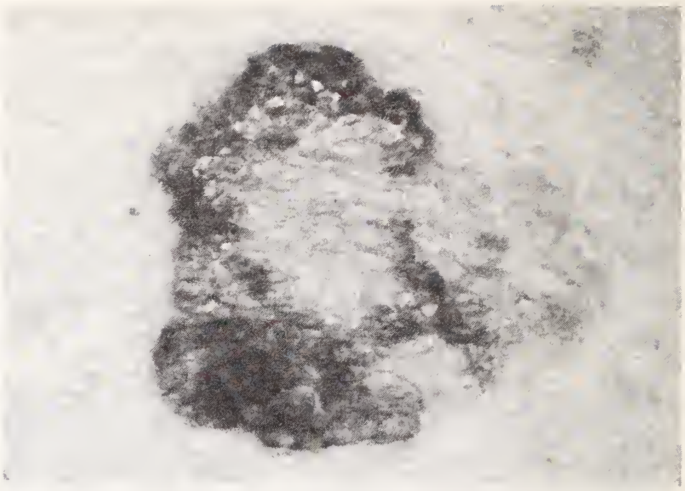

Figure 5
Superficial spreading melanoma has raised edges and an irregular outline. Some borders are advancing horizontally in the epidermis and others are regressing. The color of the lesion varies considerably, visible even on a black and white reproduction.

Nodular melanomas (Fig. 6) comprise 25% of all pigment cell cancers. These tumors are the worst variety of melanomas because they bypass the

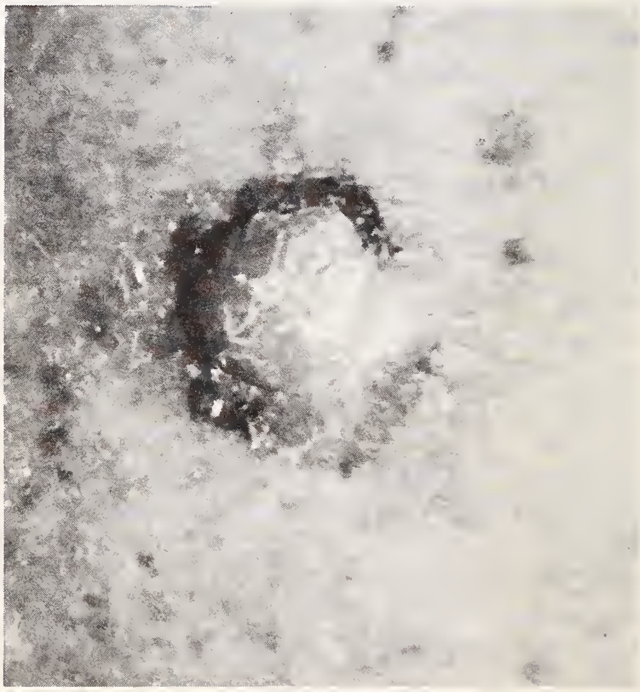

Figure 6
This is an amelanotic nodular melanoma, a mulberry shaped tumor. Flecks of pigmented melanoma cells are visible at the base of the tumor. Nodular melanomas do not spread superficially, but invade vertically into the dermis from inception and carry the worst prognosis.

superficial spreading phase and immediately invade into the dermis and subcutaneous fat and metastasize to lymph nodes and distal sites. Nodular melanomas arise anywhere on the body. The patients are usually in the 5th and 6th decades of life. Nodular melanomas have been compared to a mulberry, a dark blue to jet black round tumor arising on irritated skin. Occasionally they are amelanotic except for flecks of pigment at their base. Unfortunately, nearly all of these melanomas have penetrated into the deep dermis (Level III) by the time the patients consult their physician. These patients have a poor prognosis.

Treatment of the superficial spreading melanoma and nodular melanoma is wide excision with a 5cm margin of normal skin followed by a skin graft. Local lymph node dissection is indicated for lesions that extend to Level III or deeper. Administration of BCG (Bacillus Calmette Guerin) is of questionable value in extending the survival of patients with advanced melanomas. Metastatic melanomas respond poorly to drugs and radiation although one agent, DTIC, can produce partial remission in approximately 20% of patients with metastases. Properly administered radiation therapy may produce local regression of metastatic nodules.

There are many difficulties and pitfalls for the physician confronted by a patient with a black lesion. The clinical identification of melanoma may not be easy. Melanomas must be distinguished from a basal cell epithelioma, a blue nevus, a junctional nevus, a juvenile melanoma (a benign lesion), seborrheic keratoses and vascular lesions. Even a biopsy may be misleading. At times the first few sections made of a black lesion failed to show any evidence of cancer but recut sections or repeat biopsies revealed a malignancy. Treatment is wide excision carried out promptly. There is often a disfiguring scar. The decision to perform a lymph node dissection or to administer BCG depends upon the level of invasion. This level is determined by locating the deepest tumor cells in the biopsy. The pathologist usually has to inspect multiple sections from many areas of the tumor before deciding on the level of the melanoma. Histologic distinction between a juvenile melanoma, activated or irritated nevus, and melanoma can be difficult at times.

Many patients with melanomas develop vitiligo. In this process pigment cells are destroyed and white patches appear in the skin. This disorder and its relationship to melanomas is discussed in detail in a subsequent article on pigmentary disorders. To document a possible protective value of vitiligo or melanomas, the members of our department are conducting a prospective study on the association of these two conditions. One presumes that a specific process resisting the pigment cell tumor is inadvertently killing normal pigment cells to produce vitiligo. Can this process be identified, possibly modified, and then used to kill malignant pigment cells? This question is one of many that our department hopes to answer.

References are available from the author on request.

Breast Cancer: Reports of New Therapy are Greatly Exaggerated

This article, in the "News and Comment" section of *Science,* urges some moderation in interpreting recent enthusiastic reports on the efficacy of chemotherapy after surgery for breast cancer. What started the flurry was a report by Gianni Bonadonna, National Tumor Institute, Milan, Italy, on postsurgical therapy consisting of cyclophosphamide, methotrexate, and 5-fluorouracil (CMF). Only 5.3 percent of the 207 who were given CMF have had a recurrence of cancer, whereas 24 percent of 179 women given no chemotherapy had recurrences. The patients had been followed for an average of only 14 months, although some had been observed for 27 months since the start of the study. The author believes the characterization of this study as of "monumental importance" (it was so characterized editorally in the *New England Journal of Medicine* in its February 19, 1976 issue) to be somewhat premature. Culliton, B.J.: Science 191: 1029 (Mar. 12) 1976.

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Third Annual Report to the Governor and General Assembly

Health Care Costs

The Problem

For the past several years, a national debate has taken place throughout the country on the issue of health care—its availability, its accessibility, its quality and its cost. All these issues continue to generate significant controversy.

One issue—cost—has emerged as the dominant concern of the future of health care in this country. Health care costs—especially hospital costs—are rising far too fast. Unless effective action is taken soon to slow this seemingly uncontrollable cost spiral, the effects on the American wage earner and on government finance will be disastrous.

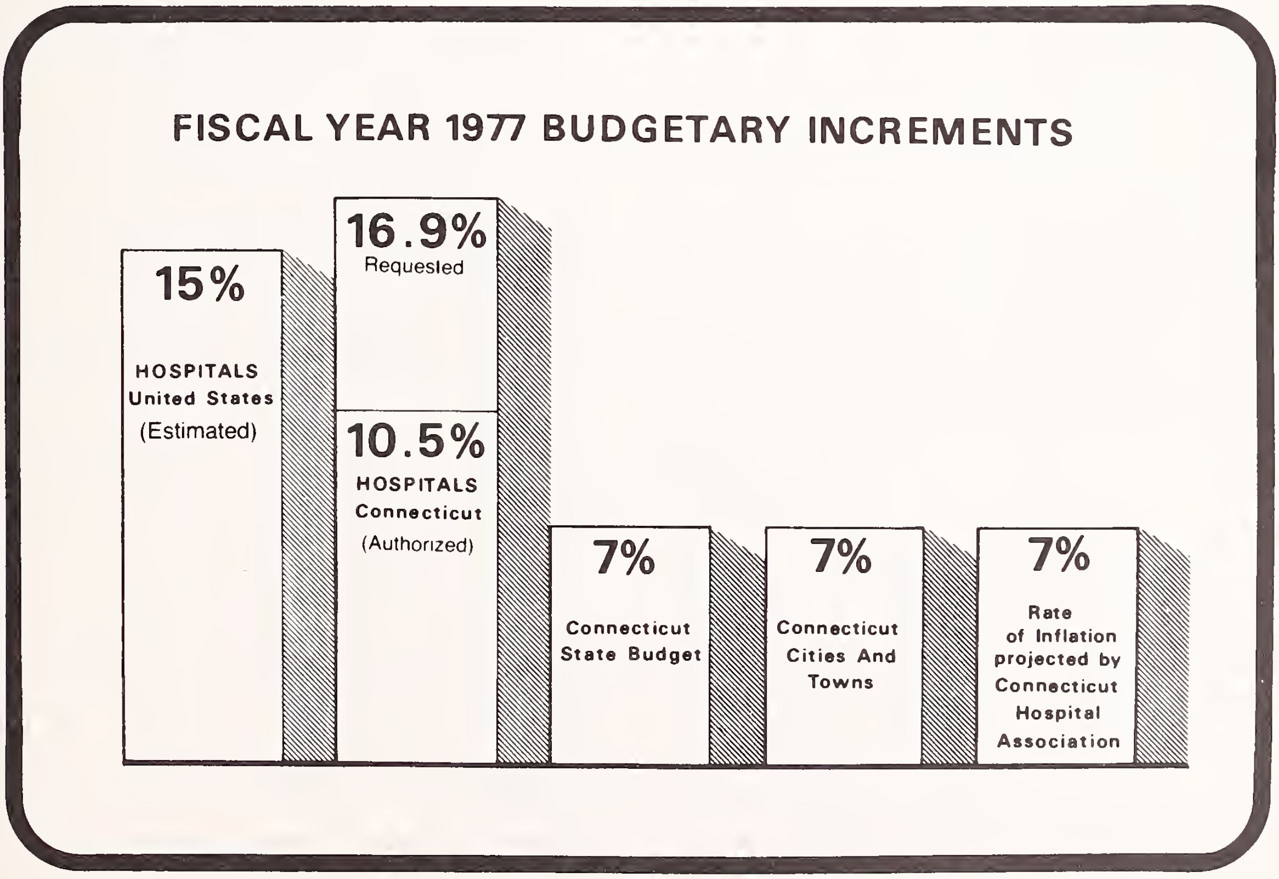
Cost/Benefit Considerations

For years it has been assumed that more health dollars result in better health care. This assumption is not supported by fact. During the past 25 years, while expenditures for health care have increased about tenfold, disability and mortality rates per thousand persons per year in the United States have remained almost constant.

The average life span in this country has increased about one year over the past five years. While the specific influences of all factors contributing to this increase are not known, many experts believe the most significant influences affecting this modest growth in the life span are changes in lifestyle rather than advances in medical care delivery. This data prompted the budget committee of the Commission on Hospitals and Health Care to consider whether a variety of less costly public education prevention programs to reduce smoking, drinking and overeating would have an even greater impact on the health of the citizens of the state than an additional $100 million in hospital expenditures.

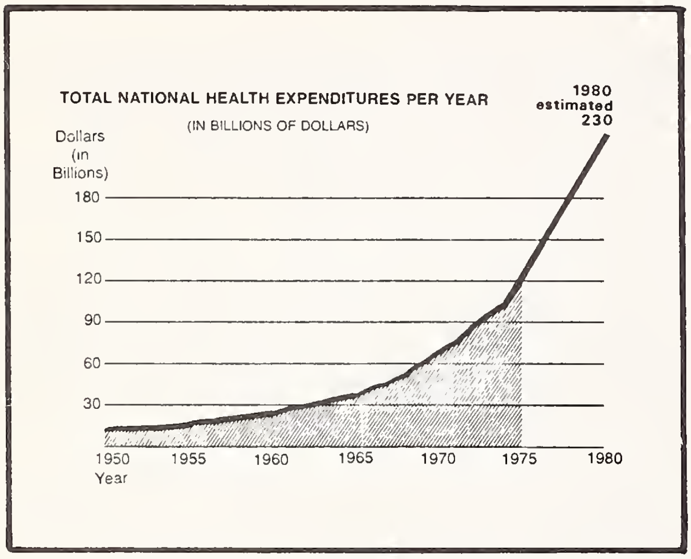
Historical Trends

Over the past decade total health care spending has increased at an average yearly rate of nearly 12 per-



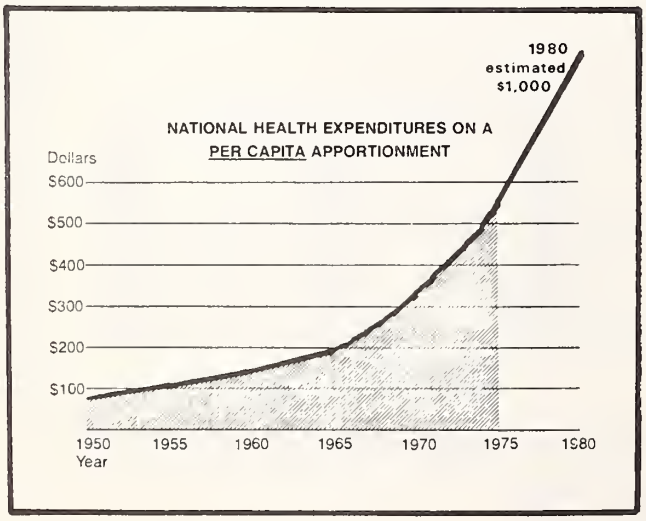
EDITOR'S NOTE: Except for omission of Tables and the Appendix this is the verbatim report on "Health Care Costs" to the Governor and General Assembly by the Commission on Hospitals and Health Care, January, 1977.

cent. Health spending rose from about $47 billion in fiscal 1966 to $139 billion in 1976 and may rise to a level of $230 billion by 1980.



As a proportion of the Gross National Product (GNP), health spending grew from 5.9 percent in fiscal 1966 to a record 8.6 percent in fiscal 1976 and will likely reach 10 percent by 1980. During fiscal 1976, while the increase in the Consumer Price Index (CPI) for all other items was 5.7 percent, the increases in medical care, physician services and hospitals were 9.3 percent, 11.6 percent and 12.2 percent respectively.

These unusually large and persistent health care cost increases are having an increasingly significant impact upon the individual American as a family member, worker and taxpayer—a much greater impact than he or she realizes. By 1975, expenditures for health care equalled $547 per capita, or $2,188 for a family of four. Based upon estimates cited in the federal government's "Forward Plan for Health FY 1978-82," these costs will likely rise to an estimated $1,000 per capita or $4,000 per family by 1980.



As the cost of health care continues to rise, the consumer is caught in a seemingly endless spiral. The rising cost of major medical coverage, through either Blue Cross or a commercial insurance company, is becoming a major burden for low and middle income families. The present cost of comprehensive health insurance approximates $1,000 per family annually, a level already pricing millions of Americans out of the health insurance market. Government and private employers as well are critically affected by the pressures of these cost increases since they share or pay the entire cost of insurance premiums for employees. In addition, businesses and middle income taxpayers together pay for the necessary health care costs for persons who receive public assistance for Medicaid, Medicare and other programs. In fiscal 1976, total government spending for health—federal, state and local—increased by almost $8 billion, or 15.6 percent to a total of $48.8 billion.

Hospital Costs—The Fastest Growing Sector of the Health Care System

Hospital services constitute not only the largest item of health care expenditures, but the fastest growing in terms of increasing costs. From 1965 to 1975, hospital costs in the United States more than tripled, rising from $13.6 billion to $46.6 billion. During the same period, the cost per day in the hospital rose from $41 to $136. At the same time the cost of an average hospital stay rose from $311 to $1,017.

In Connecticut, hospital revenues from patients have increased fivefold since fiscal 1965, rising from $152 million to $758 million in fiscal 1977. It now costs an average of more than $200 per day for treatment in Connecticut hospitals—a rate far in excess of the national average. Continuation of the 15 to 16 percent rate of increase experienced by Connecticut hospitals in recent years could drive hospital costs in the state to $500 per day by 1983 and $1,000 per day by 1988.

A major contribution to continued double digit inflation in Connecticut hospitals is the existence of significant excess capacity. For example, a continuing drop in the state's birth rate has created substantial over-capacity in the maternity and pediatric units of most hospitals. Last year alone, non-maternity patients were charged over $3 million in additional payments to subsidize underutilized delivery rooms. So far, the hospital industry in this state has taken no positive action to consolidate these units. In addition to saving consumers millions of dollars, such consolidation might well improve the quality of care of these services.

Similarly, health insurance premiums are rising at unprecedented rates. The present comprehensive Blue Cross benefit package, which costs about $1,000 per family annually, could reach $5,000 per family for similar coverage by 1988 if the current rate of hospital inflation continues.

The Need to Contain Costs

It has now become obvious that the most significant constraint on today's health care delivery system has little relation to technology, logistics or resources—it is economic. It becomes clearer each year that neither the national nor the state economy can continue to afford such expanding health costs. Unless we begin to contain costs, severe restrictions and cutbacks in health care delivery or other public services are inevitable. In fact, such cutbacks have already taken place. During 1975, 20 states were forced to reduce, restrict or eliminate coverages for people in their Medicaid programs because of rising costs coupled with budgetary restrictions.

Impact on State Finances

In still another context, health care costs have a serious impact on state finances. Costs to the Connecticut taxpayer for state employee health benefits more than doubled between the six-year period fiscal 1970 and fiscal 1976, rising from $6.3 million to $16.3 million. A cost of $19.9 million is expected in fiscal 1977. During this six-year period the total number of full-time employees has remained virtually constant. By 1983, if the present rate of hospital inflation continues the cost will be $45 million, assuming no increase in the number of state employees.

Medicaid costs, for acute care hospital services alone, have climbed almost nine times from $6 million in fiscal 1967 to $55 million projected for fiscal 1977. Despite this ninefold increase in cost, the patient caseload has increased only 3½ times. With no change in caseload, the cost of this program will soar to $126 million by fiscal 1983, assuming continuation of a 15 percent increase per year.

The inflationary impact of these two programs alone—assuming no change in benefits or beneficiaries—could cost the Connecticut taxpayers about $60 million over the next six years.

Review of Hospital Budgets

Pursuant to its responsibilities under Chapter 334a of the Connecticut Statutes, the commission has reviewed the budgets of the state's voluntary, acute care hospitals for the past three years. During the first two years of budget review, the commission concentrated on reviewing increases in charges to patients, and it appeared initially that these charges were being held to levels considerably below the national average. For example, in fiscal 1975, the increase was only 8.3 percent rising to 9.6 percent in fiscal 1976.

Charge increases alone do not accurately reflect the cost to the public for hospital services. This fact became obvious both in 1975 and 1976 when Connecticut Blue Cross filed rate increases with the state insurance commissioner averaging 15 to 25 percent per year.

The question was how could Blue Cross need such large premium increases if hospital charges were going up less than 10 percent? The answer came in the spring of 1976 after the hospitals had filed their audited statements for fiscal 1975. *The fiscal 1975 audits showed that total patient revenues from hospitals increased 15.8 percent—almost twice the level of charge increases approved by the commission. In addition, a startling fact emerged. The hospitals had generated $17 million in excess revenue which they had neither requested nor been authorized by the commission to generate. Preliminary findings of fiscal 1976 data showed that another 15 to 16 percent increase was likely—again well in excess of the charge increase approved by the commission.*

What Happened? The Influence of Volume

During fiscal 1975 and 1976 hospital admissions and patient days increased only slightly; yet the volume of special services such as x-ray, laboratory services and drugs soared at rates of increase well in excess of the national average. These dramatic increases in special services accounted for the lion's share of the revenues in excess of the levels approved by the commission. It became clear that most patients had received significantly more special services than patients treated in previous years.

It is important to note that the commission received no evidence to justify either that the proliferation of special services was necessary or, more importantly, that it had resulted in better patient care. Nor did it appear that the increased trend toward defensive medicine generated by the malpractice crisis could account for such a large growth in special services. In fact, the question arose whether this explosion of services resulted from built-in fiscal incentives which permitted hospitals to generate "profits"—or more appropriately budget "surpluses"—from the increased volume. During fiscal 1975 hospital volume increased almost 100 percent over budgeted levels. Yet, not one short-term acute care hospital in Connecticut reduced its unit prices or advised the Commission that revision of its authorized budget was necessary because of the signficant increase in volume.

Despite their failure to reduce prices as volumes increased, the hospitals did not generate significant surpluses. They simply used the excess revenues to increase their operating expenses beyond authorized levels. Unfortunately, the commission did not have sufficient information to challenge the need for this dramatic increase in the intensity or volume of services in fiscal 1975. Consequently, while the commission questions the validity of such need, there is no firm evidence either to justify or challenge the volume increase realized. The commission criticized the failure of the hospitals to reduce unit charges when volumes increased and the use of excess revenues for unauthorized expenses. The commission viewed this as a gross circumvention of the budget review process.

The Need to Alter the Budget Review Process

A review of the results of the fiscal 1975 and projected 1976 budget review process convinced the commission that it must make major revisions in its FY 1977 budget review process to contain hospital costs effectively.

In its deliberations on the new process, the commission was very much aware of the acute economic hardships placed on Connecticut consumers during this period. The unemployment rate was almost 10 percent and state and local governments found it necessary to operate on no-growth budgets of about 7 percent. Cost of health insurance, as reported earlier, averaged about $1,000 per family per year. If allowed to increase at past levels of 15 to 16 percent per year, it would put the consumer into an even tighter economic squeeze. A Louis Harris survey conducted by the Federation of American Hospitals reported that two-thirds of the American public were *unwilling* to pay 10 to 15 percent more per year for hospital care, even if by doing so they could be guaranteed better quality care and more personal attention.

After many weeks of intensive discussion between members of the commission and its staff, the commission adopted a new budget review system. The new system:

- Substituted a new mechanism to review the total patient revenue budget of a hospital rather than charge increases alone to ensure appropriate review of volume as well as price increases.
- Eliminated the loophole which permitted hospitals to generate $17 million in excess revenue in fiscal 1975. In closing this loophole the commission did not in any way limit the number of tests performed. Instead, it limited hospital excess revenue to the cost required to provide the additional services.
- Reviewed current year expenses for the first time to determine appropriate productivity levels of hospitals and provide incentives for good management.
- Established limits on the inflationary growth of hospital services based upon factors outside the hospital industry.
- Established criteria for financial requirements of hospitals.

Fiscal Year 1977 Budget Review Process

Despite the high level of unemployment and the severe economic problems of the state, the state's 35 voluntary hospitals submitted budgets aggregating $116 million over the $686 million approved in fiscal 1976, resulting in a total request of $802 million. As previously indicated, the 16.9 percent increase compared with an increase in the budgets of state and local governments of approximately 7 percent. Both the state of the economy and cost/benefit considerations convinced the commission that continued annual growth in hospital patient revenue of 15 to 16 percent was not in the public interest. Consequently, after initial review of these budgets, the commission approved $50 million in new funds or a 7.4 percent increase.

Since the $50 million was considered inadequate by all the hospitals, they individually appealed the initial decisions of the commission. As a result, public hearings were conducted by the commission for all 35 hospitals in the state. Based on the information presented at these hearings, the commission added $22 million for a total of $72 million or a 10.5 percent increase over the amount authorized in the previous year. At the present time, 31 of the 35 hospitals still find the level of increase granted by the commission insufficient and have appealed to the courts.

The Future

The commission remains committed to the concept that the people of Connecticut should receive quality care at prices they can afford. Recognizing that this presupposes a balance between our aspirations and what we can afford, the commission will continue to strive to improve productivity in hospitals, eliminate waste and duplication, encourage more regional and statewide health planning activities, and promote new and more effective ways to deliver health care.

The commission looks forward to the new challenge, and in cooperation with the hospitals, the health systems agencies, the new Statewide Health Coordinating Council and other stewards of the health care system remains confident that the challenge can be met successfully.

The remaining sections deal with the significant undertakings which the commission started this year to assist in accomplishing these objectives and with proposed legislative changes to enable the commission to continue to fulfill its mandate of providing health care for Connecticut citizens at reasonable cost.

Required Legislation

The budget review process revealed the need for changes in the existing commission legislation, particularly as it affects the time period for appeals from initial commission budgetary decisions. Additional legislation is needed to assure that when the new state health plan is promulgated by the Statewide Health Coordinating Council (SHCC) there will be adequate statutory authority for implementation. The specific legislative proposals of the commission are set forth in the Appendix to this report.

Connecticut's Plan for Prospective Reimbursement

In an effort to improve the capacity of the commission to monitor and effect cost changes among the state's hospitals, the commission, in January, 1976—at the direction of the Governor—applied for federal experimental funds to implement a model cost containment program.

Connecticut was one of five states in the country to receive a federal contract totaling $334,000, including $236,000 in federal funds, to implement this program which could prove important in helping to contain the rising cost of health care.

The application, entitled "Connecticut Plan for Prospective Reimbursement," was submitted to the Social Security Administration under provisions of the National Health Planning and Resources Development Act, P.L. 93-641.

Program Development

The commission, upon receipt of the grant, established a permanent joint experiment committee (JEC) to assist in the development of the system. Committee membership consists of both public and private sector representatives, including payor, provider, and Professional Standards Review Organization appointees and representatives of state government.

During the period of the contract award the commission will address the following major areas of study:

1. Financial requirement guidelines;
2. Determination and measurement of fixed and variable costs;
3. Grouping and screening of hospital costs;
4. Development of inflation indices;
5. Volume measurements and controls; and
6. A monitoring system.

Major Objectives

The JEC will evaluate alternative approaches to prospective reimbursement and submit appropriate recommendations to the commission. The major objectives of the experiment include:

1. *Uniformity of payment for all payors based on budgets authorized by the commission.*

Inequities between those paying for care presently exist because different criteria for payment are used by the various payors. This results in different payments for the same service by a self-pay patient, a commercial insurer, Blue Cross, Medicare or Medicaid.

2. *Elimination of cross-subsidization between services.*

Historically, hospitals have underwritten high cost/low utilized services with surplus revenues from high utilization departments such as laboratory and radiology. In other words, lower cost services provide the "profit" or extra financial cushion to offset "losses" for underutilized services where listed charges do not cover actual costs.

This cross-subsidization distorts and clouds public awareness of the true financial impact of underutilized services. For example, the charge for one day in a maternity unit may be $75 while the actual cost is $200. The charge for the use of the delivery room may be $200 and the actual cost $800. As a result, it is difficult, if not impossible, for the consuming public to make knowledgeable decisions concerning the necessity for low utilization/high cost services since cost considerations are not accurately represented. It should also be noted that in circumstances of low utilization, the level of service or quality of care provided is generally less than optimum. The facility is simply not doing enough of the service to do it well.

3. *Financial incentives to hospitals to reward efficiencies and to penalize inefficiencies.*

The present system provides little financial incentive for cost containment and control. Reimbursement criteria employed in the Medicare and Medicaid programs provide payment for all costs incurred. This guaranteed income or blank check approach to reimbursement provides no incentive for cost containment.

Under the proposed provisions of the plan, reasonable costs will be determined in advance and these costs will be used as the basis for reimbursement by all payors. This will permit hospitals to realize financial rewards if they operate at less than budgeted levels. Conversely, hospitals will incur financial penalties if they spend at levels in excess of their authorized budget.

Two additional areas of study will be addressed, independent of the federally funded portion of the plan. The first relates to the development of a uniform bill to be used by all hospitals and all payors. A uniform billing procedure can effectively serve to reduce existing hospital costs. The second area of study will attempt to determine whether there should be differences in payment for the same services by class of payor. A readily understood and accepted application of the differential concept would be a discount for early payment of bills. This latter study will be jointly funded by the Insurance Association of Connecticut and the Connecticut Blue Cross.

Planning Activities

In accordance with its authority (under Connecticut General Statute 73-117) to approve, modify or deny capital projects or new services proposed by health care providers, the commission considered and approved several programs for 1975-1976. These programs were designed to keep pace with changing perceptions and awareness in the health care field, particularly in such areas as the role of primary care and prevention, improving the health delivery system and the rise of health costs.

In the planning activities of the commission two basic objectives were emphasized:

1. *To eliminate or reduce inappropriate institutional care and encourage the use of ambulatory preventive services wherever possible.*

In recognition of the impact that a health maintenance organization (HMO), which provides both ambulatory and inpatient care within a single organizational structure, may have on reform in health care financing, on de-emphasizing costly inpatient care and on making health services more equally accessible to people in the state, the commission evaluated and approved the Connecticut Family Health Care, Inc. developmental grant proposal for a health maintenance organization in the Bridgeport metropolitan area. A comprehensive range of health services will be offered by this non-profit facility to a voluntarily-enrolled population. A group of multi-specialty physicians and a team of non-physician health professionals will provide these services under the supervision of a full-time medical director. Payment for services will be on a monthly pre-payment basis.

2. *To assure the most appropriate, effective and efficient utilization of existing health care facilities and services.*

This planning emphasis was evident in the approach to capital expenditures and new and expanded services proposals by the hospitals, long-term care and other facilities. There is a growing realization that unlimited program expansion at all levels of the health system is not desirable. A sharing of expensive technologies within geographic areas should be encouraged to facilitate optimal utilization and cost effectiveness. Several decisions were made in an effort to prevent an oversupply of specialty services and duplicative acquisitions of costly diagnostic and therapeutic equipment by hospitals and other facilities. These included denials of proposals for very expensive computerized x-ray scanners for both Waterbury hospitals and Stamford Hospital, a kinetic analyzer (device for measuring enzymes) for Bridgeport Hospital and other costly specialized equipment.

Additional innovations were: 1) approval of the Hartford Surgical Center, a free-standing ambulatory surgical center in Hartford and 2) approval of New London's Lawrence and Memorial Hospitals' proposal to provide primary care services to the inhabitants of Fishers Island through the utilization of a physician assistant (PA) in a full-time medical clinic on the island supervised by the Director of Ambulatory Care at the hospital.

In an effort to coordinate effectively Connecticut's health planning and regulatory programs, the executive director meets monthly with the chief of the Bureau of Health Planning and Development and the HSA directors. These meetings have resulted in a proposal to change the commission's procedural regulations to allow the HSAs adequate time for review of certificate-of-need applications. The commission recognizes the necessity for active participation by the HSAs and the SHCC in the regulation of Connecticut's health care system and looks forward to a close working relationship with these agencies.

Task Forces

The commission appointed a number of task forces to serve as expert technical advisory groups to develop reliable data to assist the commission in evaluating applications. These task forces included: primary care, hemodialysis, open heart surgery, acute care, long-term care, ambulatory surgery, the computerized x-ray scanner and malpractice insurance.

Task Force on Primary Care

Since it is now universally recognized that health status can best be improved by preventing disease and making care services* more equally accessible to all people, considerable effort was devoted to manpower and accessibility problems by the Task Force on Primary Care.

In its third year of activity, this task force continued to collect and analyze data on resources and needs in primary care in the state and to make recommendations to the commission on how to "improve efficiency" and expand availability of primary care services. In May, 1976, the 24-member task force submitted recommendations to the commission for increasing accessibility to care through a variety of cost-effective models and utilization of non-physician providers. The recommendations included re-examination of the reimbursement system for primary care providers with particular reference to third party payment for preventive and primary care services, and the provision of appropriate training resources, such as primary care residencies, appropriately distributed throughout the state.

A committee on organization of care completed a comprehensive study of the numbers, distribution and characteristics of primary care physicians in the state. Areas of physicians shortages and surpluses were pinpointed, indicating that the issue was one of maldistribution by geographic location rather than of numbers alone. Results of the initial analysis were published in *Primary Care in Connecticut, a report of the Commission on Hospitals and Health Care, Primary Care Task Force.*

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* *Primary care includes both first contact and continuing health care for the majority of health needs of most people of all ages.*

A committee on recruitment of professional resources: nurse practitioners, physician assistants, and dental assistants explored the feasibility of "expanded function" of the dental hygienist and dental assistant. Representatives of official dentistry in Connecticut met with the committee to offer their views. A school health dental program approach to improve accessibility was the major recommendation.

An ad hoc committee on nurse practitioners was organized to plan and execute a study to identify the nurse practitioner component in primary care in the state. This data was considered essential to identify available primary care manpower and to determine required training programs for meeting the need for primary care nurse practitioners.

Still another committee on educational resources for primary care held a series of meetings between May 23, 1976 and October 29, 1976 with the two state medical schools and most of the graduate and baccalaureate nursing programs in the state. The purpose of these interchanges was to review the existing educational resources for primary care providers and to make these institutions aware of the state's mission in assuring adequate and appropriate manpower.

Malpractice Insurance Task Force

Concerned about the skyrocketing costs of hospital malpractice insurance which had risen from $2 million to almost $10 million over a three-year period, the commission imposed a 35 percent ceiling on additional costs for hospital malpractice insurance for FY 1977. In the previous two to three years, it was not uncommon for a hospital to experience a 100 to 200 percent increase in malpractice premiums over a one-year period.

The commission established a task force to determine whether the existing mechanism of purchasing malpractice insurance through a commercial insurance company was cost effective. The task force includes representation from the Connecticut Hospital Association, Connecticut Blue Cross, the Connecticut General Assembly, the Connecticut Citizens Action Group and the commission. The work of this task force represents a first attempt to examine the cost effectiveness of an established insurance program. Similar groups were organized in the past only when it became apparent that existing insurance coverage could no longer continue, and an emergency alternative was required to ensure the continued availability of insurance for hospitals.

The task force expects to complete its work by early 1977.

Task Force on Ambulatory Surgery Programs

A questionnaire was developed to obtain information on ambulatory surgery services* provided by all general hospitals in the state. It includes general information on the location of existing and planned ambulatory surgery programs and their method of operation. Information on the number of surgical procedures performed and patient charges for these procedures was also obtained. The analytical techniques developed will produce information useful to hospitals, and assist in determining the geographical need for additional ambulatory surgery programs.

Task Force on Computerized Tomography (CT) Scanners

The commission created this task force to develop interim criteria to be used as a basis for making determinations on proposals requesting computerized x-ray scanners in hospitals and other facilities throughout the state. Such factors as need determination requirements, geographic distribution and regional cooperation and provisions for adequate access were considered in relation to the need for both brain and body scanners. It has been difficult to obtain a consensus from the technical experts on these criteria since the technological information on these scanners is complex and constantly being revised. Task force guidelines are now being reviewed by the commission.

Task Force on Open Heart Surgery

The commission held a public hearing to act on the recommendations of the Task Force on Open Heart Surgery which proposed that Connecticut does not need the seven existing cardiovascular surgery centers. The task force identified the need for two or three centers to improve the quality and cost-effectiveness of services, while assuring adequate accessibility. It recommended surgery and diagnosis be undertaken only at hospitals working close to the recommended caseload (150 procedures). Since widely conflicting testimony was presented at that hearing, the commission held two special hearings for those hospitals now performing open heart surgery. These hearings provided an opportunity for further response to the public testimony, and the introduction of new evidence and documentation. In the near future, specific recommendations will be made to consolidate several open heart facilities.

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* *Minor surgery performed under general anesthesia on an outpatient basis.*

Acute Care Task Force

This task force identified issues to be studied as essential components of effective planning for acute care. These issues included:

1. Development of an equitable method for determining bed need (by specialty) for communities, regions and state;
2. Development of the "program planning" concept as a working tool;
3. Development of the "shared clinical services" concept;
4. Definition of the key aspects to be included under medical education; and
5. Determination of unmet need for beds and clinical services.

In the coming year, specific questions related to certificate-of-need will be examined.

Task Force on Long-Term Care

The Task Force on Long-Term Care conducted informational meetings for various state groups and individuals, including the commissioners of health, aging, and social services, to advise them on the current status of long-term care and to determine how the task force recommendations should be implemented.

Several discussions were held to review the classification system for long-term care institutions recommended by the Connecticut State Department of Health. The technical experts on the task force, representing all aspects of long-term care, shared diverse viewpoints on how this controversial matter of classification should be resolved.

Task Force on Hemodialysis

The report of this task force has been finalized and is ready for publication. Although the charge of this group was to draw up a plan for the state, specifying in detail the optimum numbers of hemodialysis units to specific regions, the reporting on utilization criteria has been too vague to assure adequate standards. The information available on utilization is subject to many variables which make comparisons difficult, particularly in respect to size of unit and number of shifts in relation to maintenance of efficiency.

There was general agreement among the kidney specialists and other task force members that there is still insufficient experience with mortality rates and numbers of transplants to assure accuracy on projection figures of new cases. Consequently, the report is actually a series of guidelines rather than a detailed, comprehensive plan.

Review of Proposals on Acute and Long-Term Care Facilities

Hospital Utilization

An analysis of 1975 general hospital patient day, discharge and staffed bed data was conducted. Average annual bed occupancy and patient length of stay results were produced. Results were presented by service for each hospital and for hospitals grouped by health service area. Individual hospital services analyzed included newborn, maternity, pediatric and general medical surgical services. A comparative analysis of hospital beds and patient days per 1,000 people was also presented by health service area. This data indicated an overabundance of maternity, pediatric and newborn beds which point toward the possible consolidation of such hospital beds as a cost-saving device.

Acute Care Programs

There were 167 proposals received during FY 1976 for capital expenditures in acute care over $25,000. They were processed through Sections 19-73*l*, 19-73*m* and 19-73*n*, General Statutes. The total amount requested for capital expenditures was $74,088,174 and $57,271,819 was approved. The proposals that were either denied, modified, or withdrawn totaled $16,816,355.

Long-Term Care Programs

During the fiscal year 1976, 38 public hearings were held on proposed capital expenditures of $52,529,286 for long-term care capital projects.

The number of public hearings, capital expenses considered and categories of requests are as follows:

Number of Hearings	*Estimated Capital Expenses*	*Category of Project*
10	$12,495,000	Nursing homes
9	17,028,345	Multi-levels of health care
5	8,400,000	Investigations
4	2,097,000	Rest homes with nursing supervision
3	766,500	Homes for the aged
3	1,692,000	Adjustment of capital expenses
2	6,450,000	Sale of certificate-of-need
2	3,600,441	Alcohol detoxification facilities
38	$52,529,286	

Requests for Long-Term Projects

During FY 1976 there were 38 requests for capital expenditures over $100,000 which were processed under Sections 19-73*l* and 19-73*m* of the General Statutes. Of the $52,529,286 requested, $29,339,786 was approved, $6,390,000 was modified, $10,269,000 was denied and $6,530,000 was withdrawn by the applicant. There were 17 requests for projects costing under $100,000 which were processed under Sections 19-73*l* and 19-73*n* of the General Statutes. All of these requests were approved.

Nursing Home Utilization

A joint attempt to analyze nursing home utilization data was made by the commission planning division staff and the health statistics division of the state department of health. Information submitted annually to the health department by each nursing home was utilized to calculate average annual bed occupancy levels in each nursing home. Many nursing homes, however, did not provide data in the manner specified. This became apparent after extensive efforts devoted to data processing and development of analytical techniques produced impossible results, such as a 178 percent average annual bed occupancy level in one nursing home. A review of basic data by the health department revealed reporting problems on forms submitted, and steps were taken to eliminate these problems in data submitted for 1976.

Rate Authorization

During fiscal 1976, the commission received 109 applications for rate authorization pursuant to Sections 19-73i(b), 19-73j, and 19-73o(b), G.S. Public hearings were held to consider 95 of these applications and the commission denied or modified rates requested in 38 applications.

Inventory

The Inventory of Health Services, Connecticut, 1976 was revised, published and distributed to health agencies throughout the state. This is the second edition of a detailed compilation of health services within the state by health service area. An annual addendum will update the inventory.

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Releasing the Mentally Ill: Justice or Irresponsibility

Laurence R. Tancredi, M.D., J.D. and Andrew E. Slaby, M.D., M.P.H.

Policies regarding the treatment of the mentally ill have undergone major changes in the past ten years. Caught on the heels of the civil rights movement, there has been a procession of court decisions and legislative actions since the mid-sixties directed at strengthening the prerogatives of patients in the mental health care system. Right to treatment cases have assured in some jurisdictions that involuntarily committed patients will receive some treatment on a regular basis during their confinement. Other civil rights, such as the freedom to communicate with others inside and outside of institutions, the right to enter into contractual arrangements including marriage and divorce, and the right to legal assistance, to name a few, are no longer denied hospitalized patients in most states. Court cases have even held that inmates of mental institutions must receive just compensation for services they provide, such as working in laundries or performing janitorial functions.

Involuntary committment of the mentally disturbed has been under especial attack by a variety of civil rights groups—particularly the American Civil Liberties Union and the Washington-based Mental Health Law Project. These groups maintain that the reasons for involuntary commitment are often vague and at times arbitrary, that in many situations commitment has precluded resort by the patient to legal protections that have been available to others, such as criminals who are denied their fundamental freedom, and that the period of confinement seems unrelated to the original reasons for cimmitment or to any well designed treatment programs. Furthermore, they contend that patients are kept for inordinate time periods with minimal change in their mental condition and often with no evidence of either suicidal or homicidal behavior.

These criticisms are convincing and have already resulted in efforts to rectify the procedural deficiencies of commitment. Recent court decisions have introduced many critical safeguards for the patient, some of which, as in Wisconsin, have been enacted into legislation. In some states the patient has one or more of a variety of rights including that of timely notice that stipulates the charges justifying commitment, of legal counsel on request, of a fair and full hearing on the issues of confinement, and if requested by the patient, a jury trial. In Wisconsin and the District of Columbia in particular,* it is required that an inquiry into less drastic alternatives such as outpatient treatment or a day hospital program be made before commitment to an inpatient facility is ordered. Once committed several states require that there be periodic monitoring of the patient's care in the institution including occasional re-hearings, if need be, to ascertain whether continued confinement is necessary. On a national level the recent Supreme Court decision in the Donaldson case has been a small but significant step in the direction of checking the abuses of involuntary commitment. According to this decision, patients who are not dangerous to themselves or others, are not receiving treatment, and could survive in society cannot be confined against their will.

The Lessard case, a 1972 landmark decision in Wisconsin, has given impetus to a new series of legislative proposals that, if adopted in states across the nation, would even more significantly curtail the power of physicians and the courts to commit patients. This case has had a major impact in Wisconsin for it declared Wisconsin's civil commitment statute unconstitutional and brought about passage of a law that incorporated virtually all the rights around commitment that have already been discussed such as right to a jury hearing, aid of counsel, and inquiry into less drastic alternatives. The holding and subsequent statutory changes also shortened considerably the amount of time for which a patient could be committed by a physician. Beyond forty-eight hours a hearing is required to establish probable cause for further detention. If it should be necessary to detain the patient beyond two weeks, a full hearing would be conducted.

But more significant than these provisions are three controversial measures for patients' rights introduced by the Lessard decision that may become the subject of new legislative proposals in many states. These are: first, that the patient be advised by the examining psychiatrist that anything he discloses might be used in a civil commitment proceeding to confine him (this would essentially be the Fifth Amendment protection against self-incrimination); second, that mental illness and "dangerousness" be established beyond a reasonable doubt; and third, that dangerousness to self or others be imminent, meaning that some

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*Dixon V. Weinberger, Civ. Act. No. 74-285, 405 F. Supp. 974 (D.D.C. 1975).

objectively determined behavior must have occurred within a short time of the evaluation such as an attempt on the part of the patient to harm himself or others, or perhaps conduct which would place another person in reasonable fear that he would sustain some harm. These three safeguards, which may become more visable in modified forms in the future,* are crucially important because they narrow considerably the class of patients who may be involuntarily committed to a mental health facility.

These legal measures have been important features of the criminal justice system. It is an overriding policy of American law that justice supports a strong presumption of innocence and requires a high degree of proof in establishing guilt for a criminal act. As a consequence, policies against self-incrimination and the requirement of "beyond a reasonable doubt" exist for the benefit of the innocent man. However, regarding the mentally ill, such protective devices may not only be inappropriate but may actually induce poor quality psychiatric care. Looking closely at the first of these devices, the prevention of self-incrimination, we find that if this requirement were to be put into effect as some civil libertarians propose, it could mean that every person who enters an emergency room must be informed that what he imparts can be used against him by the psychiatrist for the purpose of certification and civil commitment. Many who are seriously mentally ill may never understand the implications of such a warning. But for those who do, especially the severely disturbed paranoid patient, this safeguard might in fact allow the patient to avoid disclosing any information about himself and therefore prevent the psychiatrist from engaging him in treatment. The paranoid patient is already, by definition, suspicious of the intentions of others. If the psychiatrist must warn him before he converses that what he reveals may be used against him, his already highly delusional system is further expanded.

Putting this protective measure into operation would essentially turn emergency rooms into courtrooms. There may be some comparable features between the two but the intentions of both are significantly different. In the emergency room the psychiatrist's primary interests are those of the patient. The evaluation which must be conducted largely through communication is geared at allowing the psychiatrist to determine the degree and nature of a patient's illness so that he can institute appropriate treatment. While a rule against self-incrimination might make eminent sense in the courtroom where a patient's freedom and reputation are at stake, it can be a major impediment to diagnosis and treatment in the emergency room. Even though the severely psychotic patient may be denied his freedom through commitment, the psychiatrist and patient are not in adversary or antagonistic roles in the mental health system. The psychiatrist's primary interest should be that of understanding and thereby assisting the patient for his own benefit.

Just as the provision for preventing self-incrimination can be a hindrance to proper treatment, so also are the measures requiring proof beyond a reasonable doubt and the presence of imminent danger. With regard to the first of these, the psychiatrist would be required to have evidence that allows him to state at nearly a ninety percent proof or even better, that the patient is mentally ill and potentially dangerous to himself and others. Unlike some fields of medical science, psychiatry is not so highly tuned. There are only rare instances where a mental health clinician can state with a ninety percent proof or better that a patient is both mentally ill and that he is dangerous to self or others. Certainly in the emergency room where many patients are waiting to be evaluated and a psychiatrist is forced to conduct a relatively quick assessment of the patient, the possibilities of establishing both mental illness and dangerousness to self and others at a high level of proof seem most unlikely. Requiring this in effect creates an incentive for the psychiatrist for either discharging most patients who do not wish hospitalization or for distorting his evaluations so as to justify commitments "beyond a reasonable doubt."

The provision requiring "imminent" danger is even more enigmatic. Most often the psychiatrist does not have objective evidence that a patient is dangerous to himself or others. Sometimes he must rely almost exclusively in what the patient tells him about his thoughts and feelings with regard to aggressive behavior. Frequently, patients will come into an emergency room and state that they feel highly suicidal or that they have an intense urge to harm someone, but there is no ascertainable evidence that they have engaged in any way in such behavior. Yet, according to this safeguard, without objective evidence of dangerousness the psychiatrist would be unable to commit the patient. What then is to be done with a young man who feels an overriding impulse to kill someone—anyone—at times, but under fear of hospitalization does not articulate his thoughts to the examining physician after being told about his rights to avoid self-incrimination? If he goes out and kills several people in the town square, do we do justice to the people he kills or the patient who, after he is treated, may need to deal with the reality that he has murdered several innocent people? Many would be discharged from psychiatric care who, though expressing very strong intentions for suicide or homicide, have not participated in behavior that could be characterized as "imminent" danger. It remains to be seen whether some jurisdictions would include verbal threats under "imminent" danger. Where this broad interpretation would be permitted there would likely be little change in the nature and scope of those who would be committable. On the other hand, the provisions guarding against self-incrimination and requiring beyond a reasonable doubt proof will most certainly constrict the class of committable patients.

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*Iowa statutes on involuntary commitment of mentally ill have recently been ruled unconstitutional by a federal tribunal. The court required many more safeguards including a "showing of dangerousness" and a more exacting standard of proof, i.e., "clear and convincing proof" of dangerousness and mental illness. See: Stamus V. Leonhardt 414 F. Supp. 439 (D.C., Iowa, May 28, 1976).

In the past the criteria for determining commitment of patients to mental institutions have been very broad and often vaguely defined. In some states one could justify commitment just on the basis of a determination that the patient was in "need of treatment" or that hospitalization was necessary for the "welfare of the patient." One state, until recently, justified commitment on the basis of "nonconformity" alone. These indiscriminate criteria resulted in many abuses. Few concerned with the treatment of patients can deny that reform of involuntary commitment was necessary and that the changes brought about by civil rights groups have introduced overall much fairness into commitment procedures.

The new proposals, however, address too strongly the rights of patients without considering the peculiar features of mental illness, its unpredictability and irrationality, that make it exceedingly difficult to arrive at a proof of dangerousness "beyond a reasonable doubt" and to engage a patient in treatment after warning about the effects of self-incrimination. As it now stands, a large number of patients are committed yearly to psychiatric institutions. Of the half million admissions occurring every year to non-federal psychiatric hospitals in this country, roughly a third are committed involuntarily. In states where strong safeguards are enacted few will be committable, so that many will be allowed to continue in their compromised condition without receiving treatment that could restore them to functioning roles in the community. Even more important, some recent studies—particularly one involving former Bellevue psychiatric patients—have shown, despite a long-held view to the contrary, that crime and violence are significantly higher in those who are mentally ill than in the normal population. Hence, the impact of releasing large numbers of mentally ill into the community would not only be deleterious to the patient himself but possibly also to the safety and well-being of others.

The current move to further limit the use of physician certification and civil commitment seems to reflect two perceptions of psychiatry that are widely held by lawyers and others dealing with mental health problems. The first of these is a growing pessimism about the predictive powers of psychiatric diagnoses. Studies are not available that show the reliability of psychiatric diagnosis regarding dangerousness to self and others. It is not known to what extent two or more psychiatrists would agree on the dangerousness potential of a patient. Some information, however, is available on the reliability of psychiatric diagnoses with respect to other conditions. Agreement among psychiatrists on broad categories of psychiatric diagnoses as psychosis, neurosis, and character disorder has been shown to exist in approximately sixty percent of cases. In only forty percent of cases do psychiatrists agree about specific diagnoses such as schizophrenia, manic depression, or obsessive-compulsive neurosis. This lack of agreement among practitioners seriously undermines the credibility of psychiatry and creates a strong inference that there would be disagreement about a patient's potential for dangerousness.

Secondly, there appears to be an undue optimism about what can be accomplished through psychiatric treatment. Since the introduction of psychoactive medications many patients who would have previously spent most of their lives in mental institutions now seem to manage in society. Because of the success of recent medications the belief is pervasive, especially among nonpsychiatric professionals, that all patients, if properly treated, should be able to function adequately on the outside, with very few requiring extended hospitalization. There is little doubt that psychoactive medications have been impressively beneficial in the care and treatment of the mentally ill and a large number have been able to leave the institutions. However, it can take several days or weeks before the medication begins to affect the patient so that hospitalization for observation and treatment may be necessary during the acute stage of a breakdown. Also, there is a small group that may never benefit significantly from medication. Medication does not miraculously transform seriously mentally ill patients into contributing members of communities. When a disturbed patient demonstrates any potentiality for dangerousness, it might take weeks of medication combined with the structure of an institution and psychotherapy to rehabilitate him before he can return to society. Commitment may be the only way some patients will receive the treatment they need to achieve mental and emotional stability.

Many issues dealing with involuntary commitment that might be helpful to legislators at this time have not been thoroughly addressed or resolved. What probability of dangerousness justifies releasing a mental patient? Should he be treated differently if his tendency towards harmfulness is directed at himself rather than others? What should be done with the demented or severely retarded patient who is unable to manage alone in the community, has no social supports, yet demonstrates no behavior that can be interpreted as dangerous? If the three provisions of avoiding self-incrimination, and of requiring both beyond a reasonable doubt proof and imminent danger are incorporated into the mental health legislation of various states, what will be the impact in terms of cost and personal safety to society? What are the treatment benefits of alternatives to commitment? In order for policies to be rational in the treatment of the mentally ill, these issues and others dealing with the efficacy of psychiatric care need to be carefully laid out and weighed. From one perspective, that of patients' rights, it might be just to significantly limit the involuntary hospitalization of mental patients, however, considering the treatment and personal needs of many of these patients, preventing hospitalization could be destructive both for the patients and society.

REFERENCES

American Hospital Association Guide to the Health Care Field, 1974 Edition (published annually by the American Hospital Association).

Ennis, BJ and TR Litwack: Psychiatry and the presumption of expertise: flipping coins in the courtroom. *Calif Law Review* 62:693, 700 (May, 1974).

Lessard v. Schmidt, 349 F. Supp. 1078 (E.D. Wisc. 1972): Vacated and remanded 94 S Ct 713 (1974).

McGarry, AL; Caplan HA (1973): Overview: current trends in mental health law. *Am J Psychiat* 130:621-630.

O'Connor v Donaldson, 425 U.S. 563 (1975); (43 U.S.L.W. 4929, June 26, 1975).

Tancredi, LR; Lieb, J; Slaby, AE: LEGAL ISSUES IN PSYCHIATRIC CARE. New York, Harper & Row, 1975.

Zitrin, A; Hardesty, AS; Burdock, El and Drossman, AK: Crime and violence among mental patients. *Am J Psychiat* 133:142 (February, 1976).

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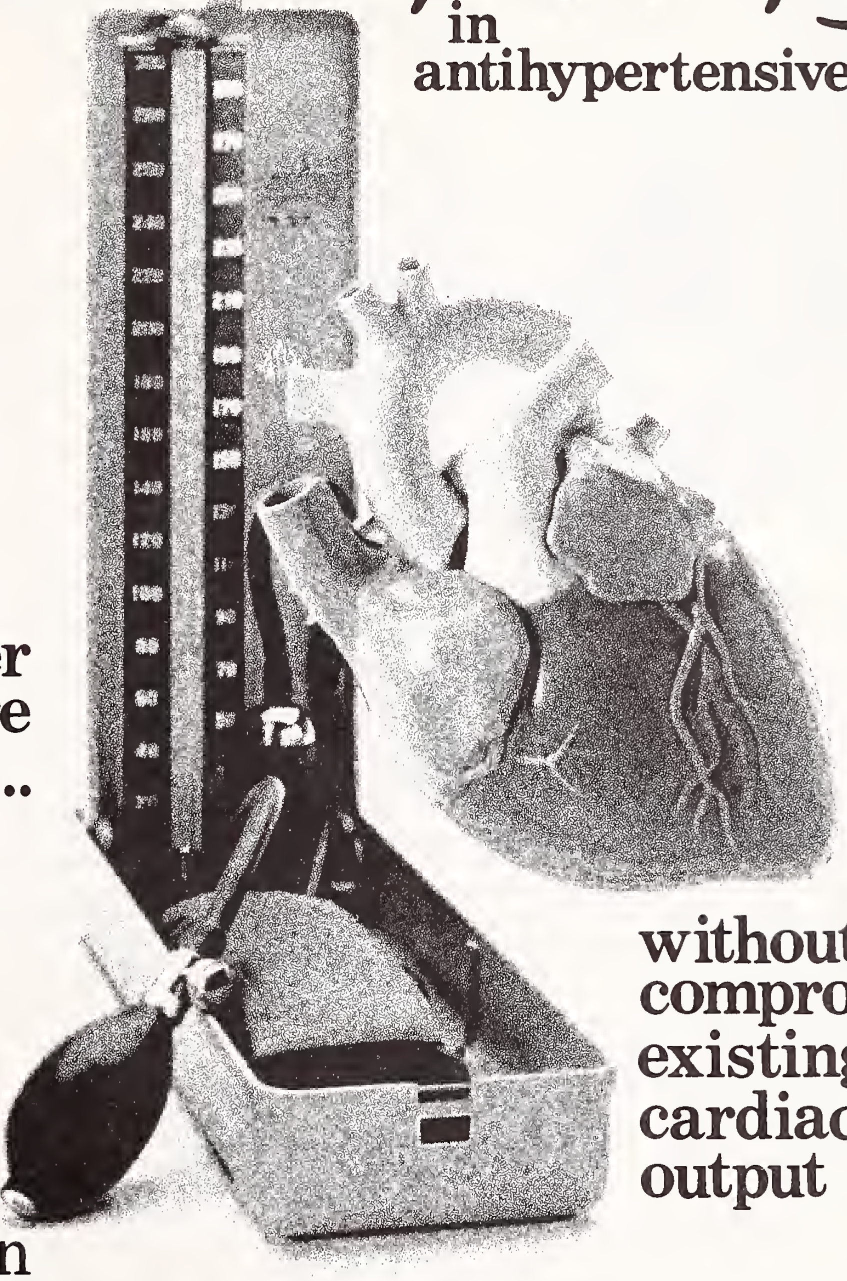

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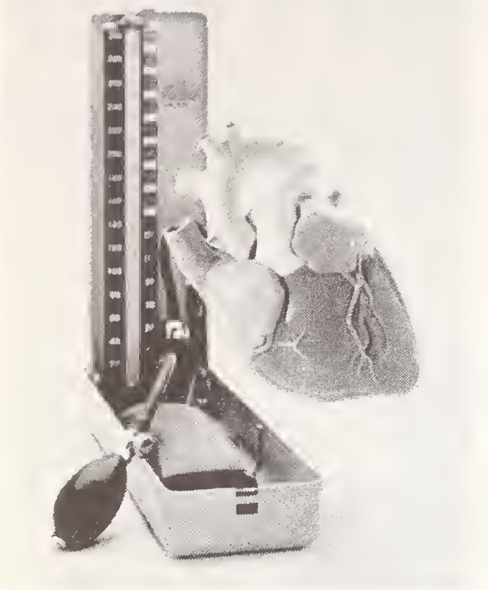

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With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Use in Pregnancy: Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

Allergic: Drug-related fever, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

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Excessive Fees for Participants in Continuing Medical Education

This resolution which was referred to the Board by the House of Delegates notes that fees for attendance at some programs appear to be excessive and that an accepted premise is that "it has always been the duty of a physician to teach his art to his fellow physicians without profit." The resolution calls upon the AMA to oppose fees to participants in medical education that exceed the reasonable pro rata cost, to prevail on accrediting agencies to require sponsors of accredited programs to indicate if the program is a profit or non-profit endeavor, and to require sponsors of programs accredited by the AMA to make a similar declaration.

More than twenty years ago, a study of the Council on Medical Education noted that exact costs and sources of income for continuing medical education are generally not fully apparent. In 1955 the mean cost per hour of instruction given among the medical schools was $19,000. This figure does not indicate the extremes of cost; but the report of 1955 notes that, in general, the greater number of hours of continuing medical education offered by an institution, the lower the average cost per hour of instruction.

These programs derive monetary support from three basic sources: the funds of the institution or organization producing the programs; various contributing agencies; and fees paid by the physicians attending.

The 1955 study indicated that 28.8% of the funds came from the institution, 31.9% from contributing agencies, and 39.6% from the physicians attending. Thus, the physicians paying a fee constituted the single largest source of income. It is likely that today's higher fees for attendance at continuing medical education programs reflect the decreasing value of the dollar, the higher cost of maintaining continuing medical education institutions and organizations, and the increasing limitation on funds contributed by other agencies.

Individual physicians who provide current programs of continuing medical education generally represent the institutions and organizations producing and planning continuing medical education. It is the institution or organization which charges the fees. One noteworthy exception is that most *hospitals* accredited for their continuing medical education do *not* charge fees. The AMA has been instrumental in helping these hospitals gain accredited status in the field of continuing medical education in order to provide physicians with an opportunity to secure much of their continuing medical education without leaving their patients.

It is believed that it would not be appropriate for the AMA to interfere with the internal operations of institutions and organizations whose budgets for continuing medical education may vary considerably. The Council on Medical Education believes that the increasing availability of continuing medical education, as indicated by the growing annual list of accredited courses, will cause institutions and organizations which charge excessive fees to find that their courses are not attended. A review of information obtained from organizations seeking accreditation of programs for continuing medical education indicates that the average annual budget for continuing medical education of ten medical schools was $419,824; of ten specialty societies, $767,584; of ten hospitals, $51,051; and of ten state medical associations, $67,394.

In 1970, at the Second National Conference of State Medical Association Representatives on Continuing Medical Education, a workshop on Financing Continuing Medical Education directed its attention to the moral and financial responsibilities of various groups in society toward continuing medical education. These groups included the consumer (patient and potential patient); the federal government; the medical schools; the individual physician; voluntary agencies including foundations, drug companies, insurance companies, etc.; and medical associations at all levels. The report points out that, eventually, financing continuing medical education will involve public funds and payments by the patient.

Currently available information indicates that the large majority of programs of continuing medical education do not result in fee income in excess of the overall costs of producing quality programs for increasing numbers of participants. The AMA will continue the effort to identify appropriate cost components as well as more appropriate and efficient ways to meet the need of physicians for continuing medical education.

Report of the Council on Medical Education, Adopted by the AMA House of Delegates, Dec. 1976.

Month in Washington

The House has moved swiftly to consider the Administration's sweeping Hospital Cost Containment program that has drawn the wrath of hospitals and physicians.

Joint hearings by the Health Subcommittees of the House Ways and Means and House Commerce Committees are in progress. Devising a bill, however, will take a long time and it could look much different than what the Administration is asking.

Rep. Paul Rogers (D-Fla.) Chairman of the Commerce Health Subcommittee, said in introducing the Administration's bill that "we must proceed with care in this area." The influential lawmaker questioned whether "any system for controlling the increases in costs of hospital care will work over the long run unless. . .an incentive system is present" to encourage hospitals to hold down increases.

Rep. Dan Rostenkowski (D-Ill.), Chairman of the Ways and Means Health Panel who also dropped the bill in the hopper, told the House that "I am sure there will be serious objections raised to the President's proposal. Some will argue that a cost containment program applying only to hospitals unfairly singles them out and will do harm to the quality and availability of necessary care."

The House hearings so far have met an almost solid block of opposition from health providers as well as tepid endorsement from labor.

Even more foreboding from the Administration's standpoint is the fact that no member of the health subcommittees of the House Ways and Means and House Commerce Committees took the role of all-out champion of the Administration proposal during the three days of joint hearings. Some lawmakers directed criticism at hospitals and physicians in connection with the inflation in health care costs, but none of the Congressmen seemed enamored of the Administration's scheme for dealing with the problem.

The American Medical Association told the Subcommittees the legislation singles out one segment in the economy for the imposition of special controls by limiting inpatient revenues of most hospitals to approximately a nine percent increase annually. This is similar to the "opprobrious retention" of the "now discredited" wage-price controls to the health field in Phase IV of the economic stablization program while removing controls from the rest of the economy, said Raymond T. Holden, MD, Chairman of the AMA Board of Trustees.

"The AMA is concerned over the impact that this legislation would have on the quality and availability of hospital care for the American people," said Dr. Holden. "It seems inescapable to us that the 'cap' on spending will result in second-rate care, and some care may simply become unavailable for many people."

The American Hospital Association, the Federation of American Hospitals, the American Protestant Hospital Association, the Catholic Hospital Association, and the Association of American Medical Colleges were among other health organizations that weighed against the Administration plan. The Health Insurance Association of America gave "somewhat qualified support" with many reservations. The Blue Cross Association proposed a national moratorium on new plant capital expenditures, but "we seriously question" whether the cap plan would be "effective or equitable."

Thrust of the testimony of the AFL-CIO and the United Auto Workers was that the wage increase "pass through" was inadequate and that a better approach would be to adopt the labor-backed national health insurance plan—the Health Security Act.

There was no immediate indication of how soon the joint subcommittees would begin work on legislation. Their calendars are chock full of other major business writing such a complicated bill and reaching a consensus will be a lengthy process.

The Chairman of the AMA's Council on Legislation, Edgar T. Beddingfield, Jr., MD, summed up the Association's criticism of the Administration bill by declaring the plan "does not support incentives for efficiency, perpetuates inefficiency in hospital care, creates a rigid program which in the long run would be unresponsive to improving quality of hospital care, discourages increased access to care, and penalizes institutions which seek to respond to increased community health needs."

Costs in the health sector of the economy do not always react with costs in general, the physician explained. The health sector is labor intensive, technologically highly sophisticated and staffed by highly trained and educated people.

The revenue "cap" plus the proposed new capital expenditure limitation "would be quite detrimental to individual hospitals which seek to remain in the mainstream of modern medical treatment and care," said Dr. Beddingfield.

The AMA officials urged Congress to postpone any action until the AMA-convened National Commission on the Cost of Medical Care submits its report next January. Drs. Holden and Beddingfield agreed with Rostenkowski that the problem of rising costs is serious, but contended that the Administration bill would compromise the quality of patient care.

Prepared by the Washington, D.C., Office of the American Medical Association.

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Somewhat battered by its treatment in the House, the Administration moved its "cap" proposal to the more friendly environs of the Senate Human Resources Subcommittee on Health headed by Sen. Edward Kennedy (D-Mass.).

At the outset of Senate hearings on the Administration's principal health proposal of the year, Kennedy said the Administration's bill "is not perfect—but it is a starting point." Declaring he has a number of reservations about it, Kennedy nevertheless said "a transitional cost control program is needed. A program that is administratively simple, doesn't create a new bureaucracy, and will result in significant savings."

Sen. Kennedy picked Georgetown University Hospital (Washington, D.C.) as an appropriate if offbeat site for the first Senate hearings on the controversial "cap" program.

Though the University proved a gracious host for Kennedy's health subcommittee, and hospital personnel were excited about the presence of big-name Senators and Administration officials, the chief administrator of the hospital took the opportunity to tell Kennedy some of the facts of life about running a hospital and why the Administration plan would be burdensome.

Kennedy had noted in opening the hearing at the hospital auditorium that "I have counted on this hospital many times in the past when my own family so desperately needed medical care."

Charles O'Brien, GU hospital administrator, told the Subcommittee as one of its witnesses that the impact of the proposed cost-containment legislation "will be to freeze at the current state the developments or expansion of new treatment courses."

"The program is administratively unworkable and entirely too complex to be equitably applied," O'Brien testified.

Joseph Califano, Secretary of Health, Education and Welfare, said the hospital system is "obese." What the Administration is asking of hospitals, Califano testified, "is that instead of having five pieces of chocolate cream pie for dessert they try to hold it to one."

Califano offered few new details but insisted that hospital cost controls cannot await national health insurance.

The American Hospital Association renewed its strong opposition to the Administration's plan. AHA Senior Vice President Leo Gehrig, MD, said "this bill is inequitable in design, wrong in concept, and impossible to administer. We believe that its enactment would seriously jeopardize the present and future ability of hospitals to provide quality care to the American people."

According to Gehrig, "These controls are wrong because they would operate through a formula that continuously screws down increases in hospital inpatient revenues so that in the future they would be limited to a rate about equal to the rate of general inflation. Such an approach would eliminate all ability to incorporate improvements in care and fail even to keep up with the known rate of inflation in the hospital market basket."

AMA spokesmen Jere W. Annis, MD, and William C. Felch, MD, in testimony before the Senate subcommittee also attacked the Administration's "cap" proposal (dubbed the "nine percent solution" by Capitol Hill wags) with arguments basically similar to those used earlier before the House subcommittees.

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The chief rival to the Administration's bill is the so-called Talmadge measure drafted by the Senate Finance Subcommittee on Health headed by Sen. Herman Talmadge (D-Ga.). This bill, which was brought up for hearings last year, institutes a prospective reimbursement system for hospitals for Medicare and Medicaid with classification by type of institution and by region and includes many incentive and punitive provisions aimed at costcutting. Significantly, the bill was introduced in the House recently by Rep. Paul Rogers (D-Fla.), Chairman of the House Commerce Health Subcommittee. Rep. Dan Rostenkowski (D-Ill.) head of the Ways and Means Health Panel, hasn't said which way he's leaning.

Introducing his long-awaited Medicare-Medicaid measure, Sen. Talmadge told the Senate of his "uncertainty over the wisdom of a cap on hospital revenues"—thus raising what many believe to be a storm warning.

Talmadge, influential Chairman of the Senate Finance Subcommittee on Health, insisted his comprehensive bill was not a rival of the Administration's. But the questions he raised about the Administration's legislation made clear that the nine percent cap plan on all hospital revenues faces tough sledding in the Senate. The plan, Talmadge said, could "cause such chaos within the hospital field as to cancel the dubious savings involved."

Nineteen Senators from both parties co-sponsored the Talmadge measure. They include Sen. Russell Long (D-La.), Chairman of the full Finance Committee.

Of the four major health subcommittees in Congress, only the Finance Subcommittee has not scheduled hearings to date on the Administration cap proposal which embraces all hospital functions, not just those involved with federal aid programs.

Reflections from the Dean's Office

Robert U. Massey, M.D.

During my orientation week in college a faculty member or dean reminded us that the chief purpose of a liberal education was to provide the student with a vision of the "good, the true, and the beautiful." I believe he quoted from St. Paul's Second Epistle to the Philippians: "Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure; whatsoever things are lovely; whatsoever things are of good report; if there be any virtue, and if there be any praise, think on these things." There was little question forty years ago that teaching values was appropriate; there had been growing an uneasiness about whose values should be taught.

Many medical schools have introduced work in the humanities in recent years. There are several reasons for this, but chief among them is the increasing urgency of ethical problems in medicine and the difficulty in resolving them when values are either relative or denied. There are other reasons too, including our students' avoidance of humanistic studies in undergraduate work because they have been told that only science is important in medicine. That is our fault; it is the students who, sensing need, have requested work in philosophy and history.

They want clues about how to deal with the matter of values. Science addresses that which is, not that which ought to be. This does not mean that the use of science is without humanity, but rather that the method of science avoids value judgments. Francis Bacon at the beginning of the age of science reminded us that "Mere power and mere knowledge exalt human nature but do not bless it," adding "We must gather from the whole store of things, such as make most for the uses of life."[1]

The subject matter of the humanities is human values. In their efforts to rival the support achieved by the sciences, the humanities have adopted a kind of scientific method, denying values except as things to be described. Medical school faculties have been admonished not to expect seminars in ethics to increase humane and compassionate behavior in students. Those things, say the humanists, must be imparted by example, covertly, and are no special responsibility of philosophers.

Of course they are partly right. Compassion is no more owned by ethicists and historians than by anatomists and endocrinologists. There is no more assurance that the moral philosopher will be moral than that the internist will be healthy or the psychiatrist sane. Someone has remarked that the devil is a good theologian.

We nevertheless continue to believe that the liberal arts are ennobling, even though that word itself has a jolting, archaic sound. Years ago, the historian, Cordell[2] listed reasons for teaching medical history. For one he said that, "It furnishes the stimulus of high ideals which we poor, weak mortals need to have ever before us; it teaches our students to venerate what is good." Seventy years later few would openly hold that history and biography should be used to present examples of national and personal virtue; that philosophy should advocate a system of ethics or metaphysical beliefs; or that the purpose of literature is to correct human error.

While we should have difficulty rehabilitating concepts of the nineteenth century, I suspect that we would not deny that all knowledge ultimately is for the good of man, "for the uses of life," as Bacon said. History may ennoble, philosophy does seek an explanation of the universe, and literature often holds up the bright mirror in which we see clearly our follies. Values determine human society. But values which are seen to be relative, to be ephemeral, to be more or less equivalent one to another, are often denied except as examples of value *theory*. Zaner[3] points out that such values, drained of power, become "private" and "inaccessible to knowledge". He adds: "From that naturally emerged the dramatic emasculation of human life: everything not material in some sense, or able to be reduced to something material (quantifiable), is thrust into the reaches of the inaccessible, unknowable 'subjective' sphere—values, emotions, goals, purposes, and in principle everything non quantifiable. From this followed rigorously the prime issues of our century: relativism and its logical consequence, nihilism."

Values can be taught and lived without dogmatism. They can be taught formally and in passing; they can be taught with rigor, charity, and serious humor, without defensiveness about western culture and middle class values. Those, by the way, have served us well in the free world; this may be a time for reaffirmation.

REFERENCES

1. Bacon, Francis: *The Advancement of Learning*, quoted by Loren Eiseley, in *The Man Who Saw Through Time*, Chas. Scribner's Sons, N.Y., p. 63, 1973.
2. Cordell EF: The Importance of the Study of the History of Medicine, Med. Library and Historical Jour., 2:281, 1904
3. Zaner, RM: The Unanchored Leaf: Humanities and the Discipline of Care, Texas Reports on Biology and Medicine, 32: 12, 1974

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EDITORIALS

Who's Afraid of the F.T.C.?

The Federal Trade Commission, dissatisfied with its normal complement of troublesome, unsolved, or insoluble problems, has taken up a new kind of advocacy. It has taken on the defense of the God-given, constitutionally guaranteed right of all American citizens to be bilked, bamboozled, duped and defrauded by other American citizens in the exercise of their own freedoms from restraint of trade.

Historically it was regarded as some kind of progress when a distinction was made between competent, conscientious, qualified physicians and the medicine show pitchmen, itinerant snake oil peddlers, and advertising quacks. The good doctors didn't advertise, and looked down upon those who did. Now, in a curious kind of upside down reasoning, the FTC says that ethical bars against advertising are a restraint of trade, and that physicians should be free to advertise for business and to revert to husksterism.

Reverse reasoning—at least in things medical—seems to have become the pattern for the FTC. Recently it tackled the subject of what body should pass on the qualifications of a new medical school. It found that the Liaison Committee on Medical Education, which has been doing this job for years, is inappropriate because of a conflict of interest. The American Medical Association is one of the parent bodies of the Liaison Committee. The FTC says that because the AMA is a "trade association" interested in physicians' incomes, it could be interested in keeping down the competition by minimizing the number of new schools, so there is an obvious, potential conflict of interest and LCME should not be approved. This totally ignores the solemn fact that the AMA, as an organization, wants nothing more than to have more members—not fewer. It ignores the fact that the AMA has vigorously assisted in the development of new schools, and has poured millions and millions of dollars from its membership into the financial support of schools, enabling new ones to mature and old ones to increase the size of their classes. One gathers that if an organization has a valid interest in the character of professional education it is automatically disqualified as an evaluating agency. To our knowledge the FTC has not said who, properly, should pass on the accreditation of medical schools.

Actually the fountainhead of fraud and abuse now seems to reside in government. The track record of officialdom hasn't been so good lately. In the last few years 11 congressmen have either pled guilty to or been convicted of crimes against the public. Those found guilty in the past 6 years include a Vice President, 3 cabinet officers, 3 governors, 34 state legislators, 20 judges, 5 states attorney-generals, 28 mayors, 45 local officials and 170 policemen. Convictions of physicians for fraud or abuse in government medical care programs over the same time have been, by these standards, negligable. On the other hand there is probably less excuse for—and more potential hazard in—a dishonest physician than there is in a dishonest congressman or policeman, and so long as there is a single dishonest physician there is a problem for the profession. Happily—that problem is not large.

Recent figures, released by the Bureau of Health Insurance in the Social Security Administration and by the Social and Rehabilitative Services, also in the Department of Health Education and Welfare, purport to show how much money has been paid by the Medicare and Medicaid programs to individual physicians. The thought has been that the public is entitled to information on such matters. The fact has been that misinformation has been spewed forth in a way that could scarcely have been accidental. Someone in authority must have known that the figures were as phony as a six dollar bill. Certainly, when the figures were challenged, federal officials were prompt and candid in declaring the reports to be both useless and misleading.

It is rather cowardly of the federal experts to push the blame off on computers. It took more than a small touch of human genius to tally up payments of $715,000 in 1975 to a physician at a Pittsburg address, when the good doctor retired 19 years ago and has been living in Hawaii. $258,139 was presumably also paid for 1975 services to a Chicago physician who died in 1974, and one of the better assertions was that Medicare had paid $233,871 for services to its over 65-year-old beneficiaries to a pediatrician who retired 12 years ago and has been living in Arizona.

When the same federal agencies and the same federal officials, using the same phony federal figures, come up with allegations of fraud and abuse on the part of the medical profession one is entitled to ask who is abusing who.

Unhappily government has taken the position that physicians are not to be trusted. They need to be regulated, controlled, audited and reviewed with regularity and intensity. Since Congress overpromised back in 1965—telling all the over 65 population that they could have their medical care almost free—the costs have become astronomical due to inflation, scientific progress, and increased demand. This is now being blamed on the doctors. In that same era of overpromise Congress decreed that poor folks could get their medical care free too. They created Medicaid. In the last fiscal year Medicaid paid 10% of its money to doctors, but in that year the costs of the Medicaid program increased 15%. Please note that if doctors had not been paid at all, the costs of the program would have gone up 5% anyhow.

Much of our trouble appears to stem from the devious kind of thinking manifested by the FTC, and many of the people in our Administrative agencies and Congress. The inappropriate emphasis on a need for extra-professional constraints upon physicians has created an atmosphere of adversary relationships between government and the medical profession which is indeed unfortunate. In solemn fact the overwhelming bulk of the practicing medical profession in this country is well-trained, competent, well-motivated, and exhibits a high degree of integrity. The rather small volume of offenders is better identified by the profession itself than by outsiders. The profession has been stripped of virtually all powers for self-policing and discipline. Only government agencies grant licenses to practice medicine. Medical Societies cannot suspend or revoke licenses. This is the province of government agencies and the courts. Basic decision making in medicine is being turned over more and more to governmentally mandated agencies with a preponderance of non-medical representation. The oppressive regulatory approach which has been tried for the past dozen years has obviously failed. It is time to change, before the providers of medical service are totally forced into unionization, collective bargaining, the use of strikes or strike-equivalents, and all of the defensive mechanisms which will inevitably further depersonalize care and increase its cost. There has always been more charity and compassion in the soul of the medical profession than in big government. We should return to it once again, and the FTC should restrict itself to its commercial considerations and leave the healing professions alone.

Russell B. Roth, M.D.

Past President of the AMA
Past Speaker, House of Delegates, AMA
Present AMA Commissioner, Joint Commission
on Accreditation of Hospitals

What Price Prevention?

The prevention of mental retardation continues to be regarded as one of our most urgent bio-medical goals. Proposals for action in this area have included recommendations for the improvement of prenatal care, mass screening of newborns to detect and alleviate the effects of inborn errors of metabolism, and neonatal surgery to prevent brain damage resulting from cranial malformation or CNS dysfunction. Many have also supported extensive utilization of antenatal diagnostic techniques and abortion where the existence of a "fetus at risk" is indicated.

Despite the attractiveness of the preventive goal, we should be wary of rushing headlong in the pursuit of this, or any, consequential good without due consideration of the full range of potential social and moral consequences of the program of action. This admonition may be particularly relevant in evaluating pleas for the intensified support of antenatal diagnosis and the termination of high risk pregnancies.

In spite of the occasionally unbridled optimism with which some have argued for the eradication of mentally debilitating genetic disease we ought to admit that not even universal application of current technology will prevent the births of children with biogenetic syndromes associated with mental retardation. Until we reach that future time at which such a claim can be legitimately made (is it decades, or centuries, away?) we might speculate the fate of those individuals who will pass through our best laid nets of detection.

The spectre of several possibilities haunts us. Will we increasingly come to regard the "defective" infant as, at best, a regrettable accident, and, at worst, an unwelcome candidate for membership in our tidy community? Will parents come to reject such infants more than even has historically been the case? Will these unwilling parents, with the advice and consent of physicians, become less and less inclined to provide these survivors with any but the most trivial medical care? (Evidence that we are already on the brink of this possibility is available in the form of increasing reports of, and support for, "passive euthanasia" of infants at risk for mental retardation, many of whom have suffered disorders detectable through amniocentesis.) Will prospective parents increasingly be faced with new coercive pressures? Even as we continue to support the policy of parental autonomy in decision making following the provision of diagnostic data, might such freedom become little more than an illusion of choice? One wonders whether there already exists an underlying disposition among genetic counselors that the decision to carry a defective fetus to term is an irresponsible choice—for the child, for the family, and for the community. Will the air of moral culpability become so suffocating that parents will be denied the option of bearing a child who is less than perfect and who would be viewed as a social and economic burden in a cost-benefit society? In short, it is not unreasonable to expect that social attitudes toward existing mentally retarded persons will grow more adverse than benign as a function of increased reliance on antenatal diagnosis as a preventive tool. At least it may require extraordinary humanity to continue to improve our care and treatment of mentally retarded persons while simultaneously proliferating this recommended component of the preventive program. Unfortunately, the lessons of history shed grave doubt on the potential for achieving such balance. There can be little question but what the dimensions of rejection of the mentally retarded are broad and deep and have circumscribed very little evidence of extraordinary humanity.

On balance, it may be argued that not all preventive proposals pose such ponderous moral questions. For that matter, the very recognition of such dilemmas ultimately depends on the value system of the perceiver; undoubtedly many will argue that the issues touched upon here are of little consequence in the calculation of the costs and benefits of prevention. Let us at least agree that those who propose (or criticize) action programs make explicit not only the scientific theories and data on which the program is founded but also the value system by which they are connected to the proposal. In the spirit of this recommendation, the following remarks by Pearl Buck, herself a mother of a retarded child, are offered as a postscript.

> It can be summed up, perhaps, by saying that in this world where cruelty prevails in so many aspects of our life, I would not add the weight of choice to kill rather than to let live. A retarded child. . .brings its own gift to life, even to the life of normal human beings.

Glenn Affleck, Ph.D.

Assistant Professor of Psychiatry
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DNA Recombinant Research

In this issue Edward A. Adelberg, Professor of Human Genetics at the Yale School of Medicine, has written an important article on "Recombinant DNA Research: Benefits and Risks."

He has written it in clear language that practicing, nongeneticist physicians can understand, no mean feat since a new language in this field has evolved—a jargon by and for geneticists only.

Though fully occupied with DNA research, as part of his social responsibility he has taken valuable time to inform our members as to the issues involved. As he says, this new technology "makes possible the introduction of DNA fragments from any source—virus to human—into a bacterium such as E. coli . . ." Though the potential benefits are great, there are dangers that new pathogenic, antibiotic-resistant, cancer-producing organisms might be created and inadvertently escape into the environment, and could even upset natural evolutionary processes. Some fear the possibility of catastrophic epidemics; others, the creation of new uncontrollable organisms.

Though the effects of DNA research have tremendous potentialities even in clinical medicine, the average practicing physician knows little of what is going on in the field. One reason is that DNA researchers are writing in their own journals. But also, events in the field are occurring so quickly that even journals can't keep up with the new. Information is being spread by word of mouth, and in the daily press. Even in the two months between my receipt of this article and its publication, important events have occurred.

As recently as 1969 when a Harvard team developed a method to purify a bacterial gene, most scientists believed purification of human genes to be decades off. But only four years later, research had developed to the possibility that human genes could be purified. The implications of this to human society were so tremendous that, amazingly in the history of science, it was scientists themselves who asked for a voluntary, international moratorium in this research until together they could discuss the possibilities. After their first meeting in June 1973 at the Gordon Conference, and an international meeting in February 1975 in Asilomar, California, the newly-appointed prestigious Recombinant DNA Advisory Committee, of which Dr. Adelberg is a member, immediately proceeded to formulate guidelines for such research. The public was also invited by Dr. Donald S. Frederickson, Director of NIH, to participate in a meeting to discuss the guidelines before they were published in the *Federal Register* in the summer of 1976.

By this time scientists and the public were concerned. In 1975, a multi-disciplinary committee of the University of Michigan after an exhaustive study concluded that with proper guidelines research should be continued. In 1976 there was a public confrontation between elected officials of Cambridge and Harvard, and a similar one in San Diego about the same time. In October 1976 the New York State Legislature considered statewide guidelines. Even now, communities, states, and Congress are considering the problem. In May 1977, our own state legislature appointed a committee to study genetic experimentation for the 1978 General Assembly. Such research is being done at both UConn and Yale.

Only several months ago (*New York Times,* 3/6/77), Dr. George Wald, Harvard Nobel Prize biologist and a leader in the "Coalition for Responsible Genetic Research," called for "an immediate international moratorium on all research that would produce novel genetic combinations. . ." He considers "DNA research as the biggest issue in the history of science."

René Dubos in the *New York Times* (4/21/77) stated that "It is one of the most exciting areas of knowledge, with large philosophical and scientific implications for the understanding of life." And, ". . . since gene exchange occurs widely in nature, I now feel that it is proper to do it. . ." But Robert L. Sinsheimer, California Institute of Technology, in a responding letter warned Dr. Dubos and others to retain "a quasi-religious hostility to experiments combining genes from different organisms because. . . this [is] contrary to the ways of nature."

But events are occurring not in months, but in days! On May 28, 1977, the *New York Times* reported that scientists in California have transplanted into bacteria the genes from rat cells that carry the genetic instructions for making insulin—the first time. Their next step is to persuade the transplanted genes to function and to make the bacteria actually produce insulin—hopefully within months. A couple of days later, again a *Times* report: a new cancer laboratory at the Sloane-Kettering Institute for Cancer Research where genetic experimentation will begin was dedicated.

Dr. Carl Cohen of the Department of Philosophy, University of Michigan, in the *NEJM,* May 26, 1977, writes "When May Research be Stopped?" In a logical, rational, and philosophical article he concludes that "There is no valid practical syllogism, having true premises, whose conclusion is that research with recombinant DNA should be stopped." And even as I write this, there appears in *Science* (6/10/77) a letter to the editor (for prompt publication) that reports the conclusions of a special Ad Hoc Committee of the American Society for Microbiology that carried out an independent review of the NIH Guidelines and DNA research. It, also, concludes that "There is at present no demonstrated evidence that microorganisms containing recombinant DNA molecules are hazardous."

I must confess qualms in writing an editorial to accompany an article by such a distinguished scientist as Dr. Adelberg. I rationalize it by considering myself of the public, which in the final analysis through its elective representatives will establish the guidelines, hopefully responsibly and rationally, as taught and informed by scientists.

Lastly, as a delegate to the AMA, I have just received the Handbook of the House of Delegates which contains resolutions for the June meeting in San Francisco. Included is a report by the Council on Scientific Affairs which will be acted on by the House of Delegates, titled "Guidelines for Recombinant DNA Research." This Council recognizes the great promise for medicine in recombinant DNA research. And though it recognizes the dangers involved, it states "These possibilities do not warrant our national neglect of this important research area; the scientific effort will go on whether discontinued in this country or not."

It goes on to recommend that "The AMA applaud those scientists engaged in recombinant DNA research who, when they perceived the biological hazard involved in the work, initiated precautionary measures"; and that "the AMA approve the application of the Guidelines established by the NIH in July 1976 for containment of recombinant DNA research."

The procedure is to refer this report to a reference committee before which not only delegates, but any physician, even the public on occasion, may testify. As a result of the hearing, the reference committee will draw up a report to present to the plenary session of the House of Delegates. A majority vote will make it the official policy of the American Medical Association. I hope and believe that the House of Delegates will approve the recommendation of this Council.

Fred Fabro, M.D.

The New York Chapter of the American Medical Writers Association has given the Hammond Award "In Recognition of Outstanding Achievement" to *Connecticut Medicine* for "Excellence in Medical Journalism." The award was presented to Fred Fabro, M.D., Editor of *Connecticut Medicine,* at the dinner given by the Metropolitan-New York Chapter at the Yale Club in New York City on May 25, 1977.

The Hammond Award was inaugurated in 1964 and received its present name in 1973 upon the retirement of the late Dr. William Hammond from the editorship of the *New York State Journal of Medicine*. The award is given for distinguished editorial service to a medical journal.

Letters To The Editor

Letters to the Editor are welcomed and will be published, if found suitable, as space permits. Like other material submitted for publication, they must be typewritten *double spaced* (including references), must not exceed 1½ pages in length and will be subject to editing and possible abridgment.

OUTPATIENT BIOPSIES

To the Editor: As practicing pathologists with experience interpreting thousands of skin lesions removed in doctor's offices, we must take issue with the recommendation of the Cancer Coordinating Committee of the Connecticut State Medical Society and Dr. E. Tremain Bradley *(Connecticut Medicine* April, 1977, Pg. 256, Vol. 42) as to whether or not it is necessary to perform histologic examination of excised tissue.

As you know, all tissue removed in the hospital is submitted for examination by a pathologist, both for diagnosis and documentation, as required by the Joint Commission on Accreditation of Hospitals. Office patients deserve the same quality of care.

In our experience many lesions which are diagnosed clinically as "keratoses" represent in fact significant pathology for which further treatment, therapy or continued observation is warranted. The incidence of malignant and premalignant lesions (intraepidermal squamous cell carcinoma, actinic keratosis, basal cell carcinoma and lymphoma, either local or as a manifestation of systemic disease) is not rare, and indeed exceeds the incidence of malignancy in pigmented lesions, whose examination is encouraged by the committee.

Finally, the committee should have stated the corollary of their opinion concerning histological examination. Namely, that except in the instance of cosmetic procedures, surgery should not be performed unless the clinician feels the lesion is suspicious and that its continued presence is a threat to the patient's life or health.

Peter E. Hope-Ross, M.D.
Lewis M. Portnoy, M.D.

Fairfield, CT

The above letter was referred to Dr. Bradley, who offers the following reply:

To the Editor: Politicians, patients and, most of all, physicians want the best possible medical care for all individuals. In the same breath (or in the breath before) all agree that the cost of such optimum care is intolerable. Pathologists Hope-Ross and Portnoy have made some excellent points in their letter to you. It would be ideal to do a histo-pathologic examination on all excised tissue. In fact this was the original recommendation of the Cancer Coordinating Committee. Vehement objection was raised by dermatologists—who probably see as many skin lesions as pathologists—because they felt that patients would be subjected to unwarranted expense by the examination of obviously benign lesions. After considerable correspondence, and finally a joint conference, the guidelines suggested in *Connecticut Medicine* April, 1977, were thought to protect both the health and the pocketbook of the patient.

In consideration of the third paragraph of their letter it should be noted that our Committee excepted lesions where "gross inspection arouses some suspicion". Also most of the lesions which they cite would probably be totally eradicated by excision including a narrow margin of grossly normal tissue. Hopefully most of these would have aroused suspicion and have been sent for histopathologic examination.

In reference to their final paragraph it is obvious that there is always some reason why a lesion is excised. They "except" cosmetic surgery from the "forbidden." Is *looks* more important than *pain?* The function of the Committee is not primarily restrictive. The Committee hopes that by increasing knowledge the judgement of the physician will be improved and that patients will receive better care. We do appreciate the thought and the expressions of Dr. Hope-Ross and Dr. Portnoy.

E. Tremain Bradley, M.D.

Norwalk, CT

HYPERTENSION IN THE NEW HAVEN AREA

To the Editor: Extrapolating from several national health surveys as well as our own screenings as part of the American Heart

Association, it is estimated that in the greater New Haven area of 776,000 people, 138,000 are hypertensive. 64,000 of these patients are unaware of their hypertension; 17,500 known hypertensives not treated, and 28,000 with hypertension are inadequately treated. These are frightening statistics. Complete workups on all of these patients are obviously impractical and would be a tremendous strain on our health care delivery system. However, a simple workup as suggested by the National Heart and Lung Institute's council on high blood pressure should include for every hypertensive patient an electrocardiogram, BUN or creatinine, urinalysis, baseline potassium level, glucose, uric acid and cholesterol. These simple studies would not only help to elucidate patients with secondary causes for their hypertension but would also identify other risk factors and target organ damage that could affect cardiovascular morbidity. A complete history and physical on every patient is indicated to pick up clues to secondary hypertension and other risk factors as well.

The major problem, however, is not in detecting hypertension but insuring a patient's compliance to a lifelong drug therapy program. Physicians need to continue with postgraduate training to keep up to date on the latest drugs and their side effects. The V.A. study (reference 1) clearly shows that complications can be dramatically decreased by treating hypertension. We must educate ourselves and educate our patients as to the significance of hypertension so as to cut down on hypertensive's morbidity and mortality.

Barr H. Forman, M.D.

New Haven, CT

1. JAMA 202:1028, 1967

Scientists Seek to Inhibit Bacterial Growth on Teeth

Boston scientists have extended for many days the time in which an anti-bacterial compound will adhere to teeth and inhibit bacterial growth.

For years microbiologists trying to combat tooth decay have been studying ways that bacteria used to cling to teeth long enough to colonize, multiply, and form sufficient acids to destroy enamel. Now investigators are studying ways to make antibacterial chemicals also stay on teeth despite the flushing action of saliva.

Drs. Joshua Greenberg, Samuel S. Turesky, and Victor D. Warner knew that 8-hydroxyquinoline (8-HQ) inhibits the growth of decay-causing bacterium, *Streptococcus mutans,* on teeth in the test tube. They also had evidence that suggested that this chemical attaches to teeth by combining with calcium and other metal ions on their surfaces and is gradually released. They reasoned that if they could improve 8-HQ attachment, an antibacterial environment could be maintained on the surface of teeth for long periods of time.

To measure the length of time that treated teeth remain antibacterial, the scientists developed an assay based on serial transfers of treated extracted teeth into fresh batches of sterile culture medium. After the teeth were removed, these batches were inoculated with *S. mutans* to determine whether the 8-HQ had leached from the teeth into the fluid, as indicated by antibacterial activity.

The investigators found that after the tooth had been immersed in the culture medium for 24 hours, there was no longer any evidence of antibacterial activity. However, if the tooth were treated with ferric or ferrous sulfate before applying 8-HQ, the antibacterial activity continued during more than six sequential 24-hour immersions in culture broth.

These encouraging laboratory findings cannot be directly translated into human use, but do suggest that there are ways to prevent saliva from flushing anti-bacterial chemicals from the mouth.

Eleven Ways To Minimize the Risks Of Professional Liability Suits

ONE: Know your abilities and stay within your capabilities with willingness to refer or consult early and when needed.

TWO: Involve the patient in treatment decisions, with adequate explanation of risks and possible complications. Avoid developing parent-child relationships with patients. Don't accept "You're the doctor, do what you think best." Such patients are escaping and want your omnipotent cure, but if things don't go well they also want you to have all the blame.

THREE: Second opinion — give all patients having major surgery or serious diseases the opportunity of a second opinion and document it in the record. With any medical high-risk procedure or unusual procedure, i.e., hysterectomy in a woman who wants children, insist on a second opinion.

FOUR: Be completely honest. If your patient develops complications or if there are untoward events, be completely honest, be aggressive in management and get early consultation, if indicated. Likewise, keep good records of the events and your advice to the patient and family.

FIVE: Participate in continuing medical education because a significant percentage of suits have been for misdiagnosis or failure to use a recent acceptable new form of therapy or diagnostic procedure.

SIX: Keep your thoughts private concerning other physicians' capabilities or adequacy to manage a case. Especially don't discuss such cases at social affairs. Likewise, making a judgment as to whether some untoward event was malpractice, based upon inadequate hearsay evidence in the doctors' lounge, is a disservice to your colleagues as well as yourself. Any discussion held on such a topic should be considered in a positive way instead of a negative one. Discussion of other physicians' capabilities should be held only under appropriate circumstances.

SEVEN: Confront disgruntled patient. If you feel that a patient is disgruntled, confront him as soon as possible and discuss the apparent concerns. Try to settle differences as reasonably as possible. This will usually diffuse the problem.

EIGHT: Beware of doctor shoppers. Patients who talk down every physician they have seen prior to you will probably put you in that same grouping in the near future. Be wary of "doctor shoppers." Encourage good doctor-patient relationships.

NINE: Notify carrier early. If you feel that an untoward incident or event is likely to cause a claim or suit notify your insurance carrier early. Sometimes their early intervention can head off an escalating chain of events and settle a problem with minimal expenditure of time and money. Insurance companies are doing more aggressive claims management but to be most effective you need to notify them early.

TEN: Serve as patient advocate. If your patient has an untoward incident, such as an injury caused by falling out of bed, serve as his advocate and approach the problem aggressively with the hospital administration to be sure the patient is cared for and financial differences settled before he leaves the institution.

ELEVEN: Establish "Incident Committee." Encourage your hospital to establish an incident/maloccurrence committee to investigate all incidents and maloccurrences to make sure that the patient is helped in the most aggressive, concerned and sympathetic manner and to prevent similar occurrences in the future.

—*AAFP Reporter,* June 1977

Here's how to increase your peripheral vision by 60% while driving

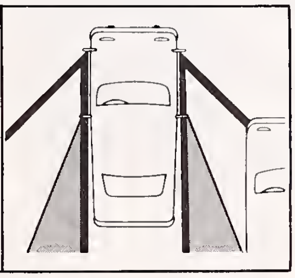
– and avoid the constant hazards of changing highway lanes

There is a constant nightmare in driving on high-speed highways – or simply moving about on city roads. When the time comes to change lanes, you look into your rear view mirror, check the side mirror and quickly glance over your shoulder – all of which takes your eyes off the road ahead – but there's still a blind spot. The frantic honking, and screeching of tires, indicate you had a near miss again. Minutes later you are still shaken by the incident.

Regular mirrors simply do not spot the cars that are right along side, and our peripheral vision is just too limited to be of any help. Consequently, every time we change lanes in today's fast-moving crowded highways, we are compelled to take the *double risk* of being unsure of what's beside us, and of taking our eyes off the road and the car ahead. And who knows what's happening up ahead during those few split seconds our eyes are off the road. Scarey?

Happily, now there's a simple and rather elegant solution in the form of fender mirrors that allow you to move from lane to lane with real safety. Their slightly convex mirror surface is sure to show you any vehicle that you might miss in the blind spots of your conventional mirror system. You can't imagine the comfort of knowing at all times where other vehicles are without having to turn your head and, because the mirrors are mounted near the front of your fenders, you can still keep your eyes on what's happening up ahead! The result is protection for your car and yourself through a remarkable extension of your peripheral vision!

The shaded areas in this diagram illustrate the limited vision offered by conventional side mirrors. The areas outlined by heavy black lines depict the extended areas of vision with fender mirrors.



Made in England, where half of all passenger cars use fender mirrors, they fit on either right or left fender and have an important additional feature: a snap-back mechanism returns the mirror to preset alignment if anything — from a car-wash to any other displacing force — knocks them out of position.

Some of the most discriminating people in the world preserve their shiny cars from embarrassing dents with Broadsight fender mirrors.

Called BROADSIGHT Mirrors, they are easy to install and come with complete mounting and positioning instructions. When properly positioned, they will clearly show you cars right alongside yours on either the left or right side, making changes of highway lanes virtually foolproof.

They sell for $11 each, or $22 a pair, plus $2 handling per order and are available from Dept. C, Broadsight Division, Ameropean Corporation, 50 Old Hill Road, Hamden, Conn. 06514. (Conn. residents add 7% sales tax on the cost of the mirrors)

The Broadsight people will gladly send you further descriptive literature if you prefer.

1977 CSMS ANNUAL MEETING

Isadore H. Friedberg, M.D., of Hartford, accepts the gavel, emblematic of the Presidency of the Connecticut State Medical Society. Dr. Friedberg was installed as President during the recent CSMS Annual Meeting at the Hartford Hilton Hotel.

The presentation was made by Hilliard Spitz, M.D., of New London, retiring President.

During the testimonial honoring William R. Richards, M.D., right, retiring Executive Director of the Connecticut State Medical Society, a gift certificate was presented to him by the Society's new President Isadore H. Friedberg, M.D.

The testimonial took place at the Hartford Hilton Hotel as part of the recent CSMS Annual Dinner.

Hilliard Spitz, M.D., right, receives the past President's award, a Silver Revere Bowl, and past Presidents pin honoring him for his term as President of the Connecticut State Medical Society.

Presenting the award is David A. Grendon, M.D., Chairman of the CSMS Council.

Leonard R. Tomat, right, former Assistant Executive Director for the CSMS, receives a citation from David A. Grendon, M.D., Chairman of the CSMS Council.

The citation was presented in acknowledgement of Mr. Tomat's service to the Connecticut State Medical Society.

AMA-ERF checks were presented to Connecticut's two medical schools during the recent Annual Meeting of the State Medical Society.

Carl F. Hinz, M.D., center, Assistant Dean for Academic Affairs, University of Connecticut School of Medicine, receives a check for $915 while Mr. Louis Kaplan, Assistant Dean, Yale University Medical School, receives a check for $3,922.

Presenting the checks were retiring President Hilliard Spitz, M.D. and Mrs. Harold Knight, Chairman AMA-ERF, Auxiliary to CSMS.

Contributions to the AMA-ERF medical school fund in 1976 totalled $1,180,000. Virtually all of these gifts came from medical families and were solicited in large part by the American Medical Association Auxiliary.

SUMMARY OF PROCEEDINGS
HOUSE OF DELEGATES—ANNUAL MEETING
Hartford, Connecticut—April 27, 1977

Reports and Addresses

The House received reports, addresses and/or remarks from the President, the Secretary, the Treasurer, the Council, the Delegates to AMA, the Standing Committees, Representatives and Advisors, the President of the Auxiliary to CSMS, the COMPAC Board of Directors and delegates from the medical societies in Maine, New Hampshire, Vermont, Massachusetts and New Jersey.

At the Annual Dinner of the Society, held on the evening of April 27, the retiring President, Hilliard Spitz, New London, administered the inaugural oath of office to incoming President, Isadore H. Friedberg, Newington.

Dr. Spitz' address to the House of Delegates is published at the conclusion of this summary.

The Annual Dinner also featured a testimonial program in honor of William R. Richards, New Haven, who is retiring as the Society's Executive Director after nineteen years of service.

Election of Officers and Others

With several amendments, the House voted to approve the published report of the Nominating Committee (the Council). Officers elected were:

President: Isadore H. Friedberg, Newington
President-Elect: Jerome K. Freedman, New Haven
Vice-President: Edward A. Kamens, Fairfield
Secretary: Louis C. Backhus, Waterbury
Treasurer: Carl W. Johnson, Thompsonville
Speaker of the House of Delegates:
  David A. Grendon, Sharon
Vice-Speaker of the House of Delegates:
  Stuart Ragland, Jr., Colebrook
AMA Delegates:
  Orvan W. Hess, New Haven (Delegate)
  Andrew Canzonetti, Waterbury (Alternate)
Councilor-At-Large: Hilliard Spitz, New London

Presentations and Awards

Presentation to Retiring President: In recognition of his high standard of performance as President of the Society during 1976-77, Hilliard Spitz, New London, received an engraved silver bowl and a past president's pin. The presentations were made by David A. Grendon, Chairman of the Council.

Presentation to Incoming President: At the Society's Annual Dinner, following his inauguration as President, an engraved gavel, symbolic of the office of President of the Society, was presented to Isadore H. Friedberg, Newington, by the retiring President, Hilliard Spitz, New London.

AMA-ERF Grants to Medical Schools: Provided by the AMA Education and Research Foundation, unrestricted grants were awarded as follows: To the Yale University School of Medicine—$3,922. Accepting for Yale was Mr. Louis Kaplan, Assistant Dean; to the University of Connecticut—$915. Accepting for UConn was Carl F. Hinz, M.D., Associate Dean for Academic Affairs. The presentations were made by Hilliard Spitz, New London, and Mrs. Harold Knight, State Chairperson of AMA-ERF for the Auxiliary to CSMS.

Presentation of Certificate: A certificate was presented to Leonard R. Tomat, former CSMS Assistant Executive Director, for services rendered during his nearly 7 years of employment with the Society. The presentation was made by David A. Grendon, Chairman of the Council.

Principal Actions Taken

The items of business calling for specific action by the House were acted upon as follows:

(1) **Endorsement of AMA "Comprehensive Health Care Insurance Act of 1977":** Voted "to endorse and approve the AMA's 'Comprehensive Health Care Insurance Act of 1977' ". (Already introduced in the House of Representatives as HR. 1818, and in the Senate as S. 218).

(2) **Formation of Section on Preventive Medicine:** Voted to authorize the formation of a single Section on Preventive Medicine, and, in a related action, to discontinue the existing Section on Occupational Health and Section on Preventive Medicine.

(3) **Election of Honorary Member of the Society:** Voted to elect as an Honorary Member Dr. George E. Palade, Professor and Chairman of the Department of Cell Biology at the Yale University School of Medicine. Dr. Palade has been the recipient of many awards, including a Nobel Prize, in recognition of his outstanding scientific contributions in the field of cell biology.

(4) **Selection of AMA Delegates and Alternate Delegates:** Voted that although there should be no

limitations placed on the age or tenure of AMA Delegates and Alternate Delegates, the Nominating Committee of the Society (the Council) be urged to give special attention to proposing (nominating) new and younger candidates to serve as AMA Delegates and Alternate Delegates.

(5) **CSMS Policy on Malpractice Countersuits:** Voted to receive as information a subject report submitted by the Committee on Professional Liability and to adopt a subject policy statement as follows: "That frivolous or flagrantly malicious malpractice suits may be countersued. Such countersuits may be deemed viable by a Review Panel and should be so reported by the Panel Chairman to the Committee on Professional Liability, with the permission of the aggrieved physician. The aggrieved physician, himself may consider countersuit meritorious and may request review by the Committee on Professional Liability. When deemed meritorious by the Committee, such action shall be supported by the Society.

(6) **Policy Statement on Mandatory Consultation; I.E., "Second Opinion":** Voted to adopt a subject policy statement as follows: "Recognizing that the advisability of surgery (or other specific therapy) can be a matter of opinion, the House of Delegates of the Connecticut State Medical Society (1) reaffirms the right of a patient or a physician to seek consultation freely with any consultant of his/her choice; (2) opposes the concept of mandatory consultation when required by a third party payor; (3) supports the concept that when consultation is required by a third party payor, the consultation should be at no cost to the patient; (4) opposes the concept of closed panels of consultants; (5) supports the concept that if consultation is required by a third party payor, the patient should be allowed to choose a physician of his/her choice." Copy of the policy statement will be sent to the AMA for consideration and action.

(7) **Position Statement on Committee Bill No. 6221—An Act Concerning the Protection of the Rights of Infants to Medical Treatment (When) Born Alive from Abortion:** Being apprised that the subject bill would find a physician guilty of a class "A" misdemeanor if he/she failed to give the same supportive treatment to a non-viable fetus born alive from abortion as to a viable premature infant, the House voted to adopt a resolution (position statement) as follows:

WHEREAS: The Society recognizes the rights of the newborn infant and supports the concept of the physician rendering appropriate care to the live newborn, irrespective of the circumstances of delivery; and

WHEREAS: Existing Public Health Code regulation clearly mandates that appropriate care be rendered to a living fetus born as a consequence of abortion and provides penalties for noncompliance; therefore be it

RESOLVED: That the House of Delegates of the Connecticut State Medical Society is opposed to Committee Bill No. 6221 and urges its defeat by the General Assembly.

Miscellaneous Actions Taken

(1) **Committee on Program of Scientific Assembly:** Voted to delete the underlined words re the Committee's composition: "The Committee shall consist of five members of whom not more than one member shall represent a single type of medical practice."

(2) **Committee on Professional Liability:** Voted to delete the underlined words re the composition of the Committee: The Committee shall include a representative of the Council, the Chairman of the Committee on Public Relations, the Chairman of the Committee on Hospitals, the chairmen of the County Associations' committees that handle malpractice situations, ..."

(3) **Committee on Statewide Medical Planning:** Voted to delete the underlined words re the composition of the Committee: ". . . .to consist of not more than sixteen members, including the four designates of the Society serving on the Advisory Board of the Connecticut Regional Medical Program."

ADDRESS OF THE PRESIDENT

Hilliard Spitz, New London

When today is over, my term as president of the Connecticut State Medical Society will have come to an end. For me it has been a most interesting and instructive year. I thank the House of Delegates for having afforded me the privilege of serving you. Upon leaving office I would like to share with you some of the thoughts that have occurred to me during the year and offer my evaluation of some of the concerns of medicine today. I do not presume to claim that what I am about to say is necessarily the final answer. I do not presume to claim that I have any greater expertise in these matters than does each one of you. However, I have spent a year being involved with the issues and want only to sum up my thoughts for my own benefit, if for no other reason.

Professional Liability Insurance has been an important issue in the past year. Reclassification and removal of the "consent to settle" provision created a good deal of dissatisfaction. As a result of this there have been requests for different means of monitoring the program, requests for investigating the feasibility of setting up our own insurance company, and other requests in this vein. I appreciate the sincerity of these requests as well as the deep feeling which promulgated them. However, I do feel it incumbent upon me to express my own conviction that we in Connecticut have a very good plan going for us with Aetna. I feel that our efforts should be spent in developing further and improving upon the plan that we have now, rather than in developing something new. There are areas which can be improved upon and your Professional Liability Committee is pursuing some of them. As you all know, because of our complaints some adjustments were made in reclassifications and a few ratings were revised downward. A compromise was reached regarding the "consent to settle" a claim, so at least to provide for a hearing by one's peers in instances where the physician felt strongly that no settlement should be considered. While Aetna is not bound by the results of such a hearing, there can be no doubt but that such a verdict would receive serious consideration. Your Committee is discussing with Aetna the idea that before any further reclassification is undertaken, the input of the Society will be sought for consideration. Again, I do not claim that Aetna will acquiesce to any of our requests but I do believe they will be reasonable and willing to discuss their merits. As most of you know, the Society retained Mr. Howard T. Scherr, CPCU, as an insurance consultant to evaluate our program with Aetna. Mr. Scherr was responsible for creating a self-insurance plan for New Jersey hospitals. He concluded that "the Aetna is providing a unique program for CSMS members, particularly in today's chaotic medical malpractice insurance market" and he further recommended that the program be continued. He did make some suggestions about sharing data collection which are being worked out. To summarize this matter, then, I suggest that we work constantly to improve our program with Aetna and not seek a change.

The activities of the Commission on Hospitals and Health Care during the past year created a good deal of consternation in the health field. The State Medical Society was not directly involved in the issue, but we cannot avoid the fact that what goes on in the hospital inevitably affects medical practice therein. The Council did make an effort to become acquainted with the issues involved. We heard Dr. Hyde present the CHA point of view at one meeting. At another meeting, Mr. Forand presented the case for the Commission. It is easy to react emotionally to the issue. I hope we would not do this. It is, however, an area which requires medical input. It is our obligation to familiarize ourselves fully with the entire problem, not to accept indiscriminately one point of view or the other. I have said many times in the past it is a foremost obligation of the medical profession to contain costs. The health care system cannot bear the weight of increasing costs and expect to survive in its present form. However, we also have the obligation to be sure that financial savings be commensurate with the delivery of quality care. My purpose today is not to support either the CHA or the Hospitals and Health Care Commission. I would call to your attention, however, the fact that a compromise bill emanated from the Public Health and Safety Committee of the Legislature on this matter. The bill provided for key issues that both groups desired but of significance to the medical profession is the fact that, presumably because of opinions offered by some physicians, the representative of the Medical Society on the Commission would be removed. We were formerly afforded the right to nominate for his replacement but, in the future, the Society is to have no input at all on nominating the physician member of the Commission. I will refer to this again later.

On the national scene, I would remind you of the Federal Trade Commission suit with respect to advertising. I do not want to go into detail about the suit. This must be known to all of us by now. However, I do want to bring to your attention what many believe to be the real issue in this suit. It is not advertising itself. The "interrogations" which have been sent to the State office, to the AMA, to New Haven County and indeed to many other organizations and offices throughout the country—organizations not even named in the suit—deal with issues far removed from mere advertising. Rather, they inquire into the organizational structure as it exists in medicine today. The relationship of all component societies; county, state, national, are being investigated. The relationship of one segment of medical organization with each and every other segment is being questioned. The objective would seem to be more a study of organization. The suggestion has been made by many that the goal is to keep medicine fragmented, to discourage formation of a strong unified organization that can speak for all of medicine. This is admittedly an opinion and not an established fact, but it does receive much support from the nature of the material being sought. The obvious advantage in federal regulation of the delivery of health care, if opposition is fragmented, is apparent.

PSRO activity has become quite well established. The four PSRO's are operational. I must stress how important I feel our activity is in this area. This is the one activity which remains completely in the domain of the physician. Ideally the PSRO organization and the HSA organization should interact. Medical opinion and expertise, necessities for good medical care, are the product of the PSRO.

This information should be supplied to the HSA's and should be considered by these organizations in making decisions regarding medical needs. Therefore it becomes incumbent upon our PSROs to be active, to be diligent and to be sure the HSA's are fully aware of what we, the physicians, feel are the necessities for good medical care. It is also incumbent upon the HSAs in their deliberations to be fully cognizant of the PSRO evaluations. Only by such interactions can the present set-up fulfill its obligations. As you can all appreciate, there is much fear that the HSA's might not consider fully our professional input. We remain quite wary of these organizations and the AMA is still joining with the State of North Carolina in testing the constitutionality of the entire HSA program.

National Health Insurance is still not a burning issue. However, it is one which will resurface before too long. AMA leadership regards it as important that the profession take a positive stand on this matter. It is their feeling that we should be prepared to present a plan which would be meaningful as far as providing coverage for patients but also one that would be fiscally sound and one that would preserve what most of us believe to be a good system for the delivery of health care. The AMA, therefore, does have a bill on this matter which calls for total health insurance for medical care provided under our system of private practice, funded through the private sector of insurance carriers with participation of both the individual patient and the employer and providing for federal payment of premiums in instances which cannot be covered through the employment mechanism. The plan seems a reasonable one, certainly one we should become familiar with, one that deserves our consideration and, hopefully, support.

This leads me to my final thought. I have mentioned what seems to me to be efforts to divide the medical profession and to prevent the profession from organizing as a potent body able to present a unified point of view.

I have discussed the situation which arose due to conflicting medical opinions with regard to the Commission on Hospitals and Health Care.

I have discussed the need for strong PSRO activity and the need to be continually vigilant as to the activities of the HSAs.

I have alluded to the AMA stand on National Health Insurance.

To my mind, these issues indicate that this is a crucial time for the practice of medicine in this country. They indicate some of the varying forces vying to assume control over the delivery of health care. The medical profession cannot afford to play a passive role. We need a strong unified stand to advance our beliefs as to what constitutes good practice in these matters. We cannot do this with separate medical groups or individuals—each pursuing their own interests and ignoring what might be the more important comprehensive interests of all of medicine. All other groups have discovered that the way to become effective is to unite and speak with one loud voice. It is time that the medical profession, also, adopt this course.

ANNUAL REPORTS

OF THE CONNECTICUT STATE MEDICAL SOCIETY
1976-1977

Report of the Council

David A. Grendon, *Chairman*

The Council has met five times since the semiannual session of the House of Delegates last November. Detailed minutes of the December, January, February and March meetings have been received previously by all members of the House. The minutes of the April 6 meeting are being distributed with this Handbook. This report, therefore, is limited to a summary of major matters considered by the Council and the actions taken thereon. At the conclusion of the report, as appendixes, there are published a series of items of business which are transmitted by the Council to the House for consideration and action. The number given to each of the appendixes is identical with the number of the related section of this report.

1. **Matters Referred by the House of Delegates 11/17/76:**

   (a) *Malpractice Countersuits:* A resolution from the House of Delegates that "charged the Council to present to the next meeting of the House of Delegates a model strategy for assisting member physicians to initiate countersuits against attorneys and plaintiffs who file malicious malpractice suits." The matter has been referred to the Committee on Professional Liability for study and report to the Council. The Council is aware that the Committee is studying the matter and it is hopeful that a report will be received prior to the House of Delegates meeting.

   (b) *FTC Complaint:* To implement the resolution adopted by the House "to seek to discover the originator(s) of the FTC complaint against the Society and the New Haven County Medical Association" a letter was written to the Society's attorneys requesting guidance as to how to obtain this information. A detailed reply was received and it is deemed not prudent to publish all of the details in this report; however, the conclusion reached was that "Conceivably such information could come to light during the further course of the present proceedings and in our opinion the Administrative Law Judge would deny as irrelevant any effort in the current proceedings to ascertain these limited facts by discovery . . . We would strongly recommend to the Council . . . to withhold further action on the directive in question".

   (c) *Attendance at House of Delegates Meetings:* Complying with the directive of the House of Delegates, each component association was notified of the percentage of its authorized delegates that attended the 11/17/76 meeting, also notifying them of the names of the delegates who were present or absent, and stressing the importance of having full representation present and participating at all meetings of the House.

2. **Progress Report—Connecticut Ambulatory Care Study:**

The Council was apprised by Dr. Frederick C. Weber, Jr., CACS Principal Investigator, that most of the report on the Study had been completed and been reviewed by the CACS Advisory Committee; that a final chapter of the report was in preparation; and that, following review by the Committee on Statewide Medical Planning, the report would be submitted to the Council for review and evaluation.

3. **Commission on Hospitals and Health Care:**

The Council has spent many hours discussing the current ongoing controversy between the state's acute care hospitals and the Commission on Hospitals and Health Care over budgets and budget cuts. Dr. Fred Hyde, CHA Vice President and General Counsel joined the Council at one meeting and pointed out several key areas of service that would be affected by the cuts imposed by the Commission. He also outlined certain legislative proposals under consideration by CHA which would change the composition of the Commission, spell out the qualifications for Commission members and staff and substitute a number of Health Systems Agency representatives for a similar number of incumbent members now serving as "public" or "consumer" representatives. Following an extended period of discussion, including question-and-answer exchanges with Dr. Hyde, the Council voted "that the Council express sympathy for the position of the hospitals and the purposes of the Commission on Hospitals and Health care, and suggest closer constructive cooperation between the Commission and the individual administrators, perhaps with the aid of impartial but experienced consultants. The goal of all parties should be to effect maximum savings in costs and still preserve good quality health care, not by mass, across-the-board regulations, but hospital by hospital." Notice of this expression of opinion was sent to the CHA and to the Commission.

The CSMS Committee on Hospitals recommended that the Council study, and, if feasible, support in principle the legislative measures to revise and restructure the Commission on Hospitals and Health Care that are being presented to the General Assembly by the Connecticut Hospital Association.

The CSMS Committee on Statewide Medical Planning submitted for Council approval a general policy statement on rising costs of health care services and the need to have a regulatory agency "if the people of Connecticut are to have available to them all essential hospital services at the most reasonable cost possible."

Noting that a number of subject bills, including those of CHA, would be under consideration by the 1977 General Assembly, the Council voted that the Society take position of opposition or support as follows:

(a) *Makeup of Commission:* Oppose any and all bills that advocate a change in the makeup of the Commission, as it is at present, and/or change the method of appointment of Commission members.

(b) *Discontinuance of Hospital Services:* Oppose any and all bills that would empower the Commission to order the discontinuance of an existing hospital service.

By invitation, Mr. F. Bernard Forand, Executive Director of the CHHC, joined the Council on 1/20/77 and made a verbal presentation, supplemented by charts, explaining the formula or guideline system used by the Commission to screen and approve hospital budgets for 1976-77. He indicated that a similar but somewhat more stringent system has been used experimentally in Rhode Island for two years of a three year study in which sixteen acute care hospitals in R.I. had participated voluntarily, and that a system of this sort is being considered by the Congress as a prelude to any national health insurance plan that may be enacted. He denied that the budget cuts effected by the Commission put a "cap" on hospital expenditures, noting that provision has been made that income generated by services in excess of those budgeted for may be used to cover the additional costs of furnishing the greater number of services. Following his presentation, Mr. Foran responded to questions posed by the Council. The speaker also touched briefly on various legislative proposals to change the composition of the Commission, to alter the present qualifications of its executive director and to limit its jurisdiction and authority.

4. Statement on Family Practitioners:

In response to a communication received from a member of the Society which urged that the Society make a statement along the lines of "welcoming the family doctor back into American medicine and expressing support of his endeavors for equal status with other members of the profession", the Council voted to approve a subject statement as follows:

> "The Connecticut State Medical Society encourages graduates of residencies in Family Practice to establish practices in Connecticut, and urges that such graduates be granted appropriate hospital staff privileges in those fields in which they have competence as a result of training they have received in their residencies."

It was also voted to bring this statement to the attention of chiefs of staff and chairmen of credential committees in all Connecticut hospitals.

After replying to the member, informing him of the Council's action, a letter was received which requested that the Council consider broadening its statement on Family Practice and hospital privileges to include not only physicians who have completed three-year family practice residencies but also those who have passed the examinations of the Board of Family Practice and even those who can demonstrate other evidence of "knowledge or skill" which would warrant their being granted hospital privileges commensurate with such knowledge and skill. After some discussion, it was voted to refer the entire matter to the Section on Family Practice for study, report and recommendation.

5. Physician Liability Coverage As Criterion for Hospital Privileges:

It was VOTED to receive as information a subject communication furnished by the American Medical Association which recounted the situation that exists in a number of other states where hospital boards of trustees have made, or tried to make, the status of a physician's professional liability insurance coverage a criterion for hospital staff privileges. It was further VOTED to receive as information a proposed statement as follows: "The Council of the Connecticut State Medical Society is aware of a growing tendency of hospital boards of trustees to make the ownership of professional liability insurance, often in specified amounts, a condition for the granting or continuance of staff privileges. The Council, acting for the Society, urges that the criteria of professional competence and ethical conduct be the only ones applied in the matter of granting or continuing hospital staff privileges. The Council is aware that non-insurability against professional liability may, though by no means certainly, indicate a weakness in the physician's competence. In light of such a possibility, the Council urges that hospital boards of trustees call upon the hospital's medical staff to investigate the circumstances of a physician's non-insurability or lack of liability coverage, so as to be as certain as possible whether his/her professional competence is in question before passing judgment on granting or continuing his/her hospital staff privileges." Finally, the Council VOTED to refer the foregoing policy statement to the Committee on Professional Liability for evaluation and report. It is hoped that such a report will be received in time for presentation to the House.

6. Stemming from the Discussion of the Summary of Actions Taken by the AMA House of Delegates, 12/5-8/75, the Council Took Action as Follows:

(a) *Proposal to Have Full-time, Salaried AMA President:* VOTED to express disapproval of this proposal and so inform the AMA Board of Trustees and the Council on Long-Range Planning and Development (to which it has been referred for study and report to the next AMA meeting).

(b) *Relative Value Scales:* VOTED to support, and so notify the AMA Board of Trustees, a subject resolution adopted by the AMA House of Delegates as follows:

> "RESOLVED" That the American Medical Association continue to pursue through all appropriate means the introduction and enactment of national legislation designed to confirm the authority to develop and use relative value scales and studies by the medical profession."

(c) *Coordination of Legislative Activities of AMA-State Societies-County Associations:* VOTED to refer to the CSMS Committee on Legislation for evaluation, feasibility study and report, a subject resolution referred by the AMA House to the Board of Trustees (for report to the 1977 Annual Convention of the AMA House of Delegates) as follows:

> "*Resolution 36:* This resolution urges the Association's officers, staff, council and committee chairman to undertake discussions with officers and staff representatives of state medical societies to bolster federal legislative relationships through 'Key Man' legislative programs."

(d) *AMA Direct Billing for Dues to AMA Members:* VOTED to inform AMA that the Society has no objection to direct billing of AMA members in Connecticut, and to direct Staff to advise AMA of any "problems" that the Society might encounter as a result of such billing, if any. Direct AMA billing is proposed for 1978.

(e) *Medical Student Liability Insurance:* VOTED to bring to the attention of the deans of the two medical schools in Connecticut a subject resolution that is under study by the AMA Board of Trustees and Council on Medical Education (for report to the 1977 Annual Convention of AMA House of Delegates) as follows:

> "RESOLVED: That the American Medical Association encourage every medical school to try to make comprehensive liability (insurance) coverage available to its students while they are participating in the core curriculum of their respective medical schools; or extensions of this core curriculum that have been approved by the deans of their respective medical schools."

The Council further VOTED to ask the deans whether such liability coverage is available to students at their respective institutions. Information has been received from Yale that the medical students are covered by a general University liability insurance.

7. Petition to Form Section on Preventive Medicine:

The Council voted to approve the formation of a new combined Section on Preventive Medicine and to recommend to the House of Delegates that establishment of the Section be approved. (Appendix Item No. 7)

8. Discontinuance of Existing Sections:

In a related action (see paragraph 7), the Council voted to approve discontinuance of the existing Section on Occupational Health and Section on Preventive Medicine and Public Health, and to recommend similar action by the House of Delegates. (Appendix Item No. 8)

9. Position Statement on Licensure of Allied Health Personnel:

The Council voted to approve the subject position statement, which has also been approved by the CNA Board of Directors. The statement will be published in the April issue of *Connecticut Medicine* and copies have been distributed to hospitals, educational institutions and the General Assembly's Committee on Public Health and Safety and Committee on Education.

10. Employment of a New Assistant Executive Director:

Mr. Leonard R. Tomat, Assistant Executive Director left the employ of the Society to become the Executive Secretary of the Fairfield County Medical Association in February. After review of 100 applications by the Subcommittee on Administrative Organization and Planning, Mr. Robert Brunell of New Haven was employed and was added to the staff in February. A certificate in recognition of the services rendered to the Society by Mr. Tomat will be presented to him at this meeting.

11. Report of the Nominating Committee:

The Council, acting as the Society's Nominating Committee, has prepared and approved a slate of nominations for all offices and committee posts elected by the House. The slate is published in this Handbook under "Report of the Nominating Committee" and the Council recommends its approval. (Appendix Item No. 11)

12. In conjunction with taking the foregoing action, the Council voted to recommend to House of delegates for approval changes in standing committee composition as follows: (Appendix Item No. 12)

(a) *Committee on Program of the Scientific Assembly:* Eliminate the restriction that no two members of the Committee may be engaged in the same type of practice.

(b) *Committee on Professional Liability:* Eliminate the provision that the chairmen of the Committee on Public Relations and the Committee on Hospitals, by title are automatically members of the subject Committee.

(c) *Committee on Statewide Medical Planning:* To eliminate the provision that the Society's representatives to the Connecticut Regional Medical Program (CRMP), by title, are automatically members of the subject Committee. *N.B.* CRMP is no longer in existence.

13. Resolution re "Soviet Health Professionals": The Council voted to adopt a subject resolution as follows:

> "RESOLVED: That the Connecticut State Medical Society call for the immediate end to the abuse of psychiatry for political purposes in the USSR, and instruct its officers and representatives to transmit this resolution to the President of the United States, the Secretary of State, Connecticut's Representatives and Senators and to the Secretary-General and Premier of the USSR as well as to the Soviet Ambassador to the United States."

Acknowledgement has been received from several of the persons to which this resolution was submitted and it has been published in the Congressional Record.

14. New Medicare-Medicaid Billing:

It was VOTED to receive as information a communication from the New London County Association's Board of Trustees, which called attention to the excessive demands on physicians' time caused by the new "double billing" procedures that must be compiled with in submitting claims for Medicaid patients who are entitled to Medicare benefits. Since the new procedures were imposed by the Department of Social Services, the Council VOTED to instruct the Liaison Committee with DSS to vigorously protest and seek immediate relief from the new Medicare-Medicaid billing procedures, in that they constitute an unwarranted burden on physicians and will undoubtedly discourage additional physicians from participating in the Medicaid program.

15. Policy Statement re: Emergency Medical Systems:

It was VOTED to receive as information a communication from the CSMS Committee on Accident Prevention & EMS which requested Council endorsement of an editorial written by the Secretary of the Committee, Allan A. Brandt, Milford, titled: "EMS Systems Justification—The Need for CSMS and State Government Support". The concluding paragraph of the editorial read: "The Connecticut State Medical Society formally supports emergency medical services systems in Connecticut and urges State Government financial support for their widespread implementation."

Following an extended period of discussion, it was further VOTED to endorse the editorial as a policy statement for the Society, and to refer it to the Journal Editor as information, for evaluation and for possible use as a Journal article; also, to the Committee on Legislation as information and for guidance.

16. Nominee for Honorary Membership:

It was voted to recommend to the House of Delegates for election as an Honorary Member of CSMS to Dr. George E. Palade, Professor and Chairman of the Department of Cell Biology at the Yale University School of Medicine. Dr. Palade is a Nobel Laureate and has been the recipient of many national and international awards for his scientific achievements in microbiology. (Appendix Item No. 16)

17. CMS Policy re Allowable Payments:

It was voted to receive as information from the New Haven County Medical Association Board to the

President of CMS a communication expressing objection to "CMS' retroactive reduction in maximum allowable payments . . .". It was stated that CMS has reduced payment for suction curretage performed in an office setting from $125-$150 to $25, and that such a reduction will encourage patients to opt for costly hospital admissions rather than ambulatory operative treatment. Following a period of discussion of the issue, the Council further voted to inform CMS of its support of the position of the NHCMA Board of Governors on the grounds that such position is in keeping with CSMS policy that equal payments should be made for equal services, whether the services are performed in an inpatient or an ambulatory setting. A response from CMS is expected.

18. Progress Report of FTC Complaint and Related Developments:

Since the last report to this House, the Society has received a further subpoena from the FTC for additional CSMS documents, dating back to 1955; a subpoena from the Federal Elections Commission demanding documents and information concerning the Society's relation to COMPAC. The hearing has been postponed from June until after Labor Day and a petition has been submitted by the AMA-CSMS-NHCMA that the FTC reconsider its action to issue a complaint initially and to possibly withdraw it. The question of reconsideration has been certified by the Administrative Law Judge and the question will come before the FTC at some indefinite date in the future.

19. Changes in Format for House of Delegates Meetings:

After study by an Ad Hoc Committee appointed by the Council, the Council voted to approve some minor changes in the format for House of Delegates meeting. In brief, steps will be taken to assure that members of the House are present on time, so that the Call to Order may be made at the scheduled hour; that resolutions and reports be handled expeditiously, by direct acceptance whenever possible, to the end that the "caseloads" of reference committees be kept to a minimum and the time of the House conserved; that the mid-day luncheon be devoid of speakers or other types of programs, to the end that convening for the afternoon session will not be delayed; and that the House complete action on its business agenda before proceeding with introduction of guests, presentation of awards, etc. These changes will be implemented at this meeting and it is hoped that they will bring favorable results.

20. Resolution re Connecticut Tumor Registry:

Being apprised that a recent opinion rendered by the State Attorney General's office indicated that a new law on "confidentiality" (P.A. 76-421) may prohibit the sharing of the Registry's statistical data with other agencies engaged in cancer research and control, which it has done for many years past, the Council VOTED to adopt the following resolution (introduced by the Cancer Coordinating Committee).

> RESOLVED: That the Council of the Connecticut State Medical Society endorse the current practices and functions of the State Department of Health with respect to collection and transmission of individual identifying information that may be covered by Public Act 76-421; support their continuation; and emphasize that both cancer research and cancer control in Connecticut, as particular health activities, require such continuation.

It was further VOTED to inform the Commissioner of Health of this action.

Committee on Professional Liability

M. David Deren, *Chairman*

Number of Members: 20
Number of Meetings: 10
Average attendance: 8 MDs and 4 guests

Monthly Meeting of the Four Claims Review Panels

Summary of Activities: Early in 1976 the CSMS Committee on Professional Liability asked Governor Grasso to form an on-going Commission on Malpractice. Instead the Malpractice situation was assigned to the Committee on Insurance and Real Estate. Various members of the Committee on Professional Liability appeared before this legislative Committee in Hartford and many informal meetings and discussions were held with members of the Committee. We did not get all the bills passed that we introduced with the aid of our lobbyist, Mr. Dunn, but we did made some important progress. The following bills were signed into law.

The following bills were signed into law by the Governor in May and June of 1976: P.A. 76-413: An act concerning peer review immunity will provide immunity from civil liability for any member of a medical review committee and any witnesses appearing before such a committee; P.A. 76-117: An act concerning notice of cancellation of Professional Liability Insurance Policies; P.A. 76-61: An act concerning records of cancellations of Professional Liability Insurance Policies; P.S. 76-125: An act concerning failure to bill and advance payments as inadmissible evidence in Malpractice Cases; P.A. 76-137: An act concerning disclosure of names or reports of plaintiff's expert witness in malpractice actions. Section 52-159 of the statutes was repealed to allow the defendant the same right to compel disclosure of names and reports of the plaintiff's expert witnesses as a plaintiff has in regard to the expert witnesses of the defendant in malpractice actions.

The Committee concluded that the physicians had not been able to convince the legislators that there was a malpractice crisis in the State of Connecticut. It was also noted that the public, as consumers, probably had more direct input to the thinking of the members of the General Assembly than did the physicians. Physicians must get the general public interested in the malpractice issues in order to be effective.

Your Committee has studied the numerous legislative activities sponsored in other states. It was concluded that if legislation was to be one of effective ways of stabilizing the liability situation, the Society would have to keep working at legislative proposals over a period of several years.

The Committee met several times with Attorney Philip Dunn to develop legislation which could be introduced into the 1977 General Assembly in order to keep the Society program and work of the special legislative study committee alive. To gather even more support a subcommittee met with the Connecticut Bar Association to seek their endorsement. At present we are seeking action in this legislative assembly on the elimination of the Ad Damnum Clause in Malpractice Suits, the Voluntary and Non-binding Pre-Trial Screening Panel for Medical Malpractice Case, and The Expansion of Peer Review Immunity received support from the Bar Association.

Installment payments for malpractice awards and the declaration of all collateral source payments did not receive Bar Association endorsement, but will continue to be part of the Society's legislative package.

If legislation, as proposed by a member of the plaintiff's bar succeeds in extending the statute of limitations, the Society will have to gather forces to fight its passage. Connecticut has one of the best statute of limitations. Any changes would be regression and harmful to our professional liability program.

Attorney Dunn has been most helpful as our legal advisor and will continue to be available to the Committee as needed.

A special meeting was held with Aetna representatives to coordinate support for the CSMS legislative package. The Aetna has shared with the Committee the legislative successes and problems experienced in the other seven states covered by the Connecticut Plan.

Mr. Howard Scherr of Princeton, New Jersey, was engaged as a consultant to evaluate the CSMS-Aetna Professional Liability Program. The complete report prepared by Mr. Scherr was published in an issue of *Connecticut MD.*

A Summary of his findings and recommendations follow:

1. Availability of Professional Liability insurance is guaranteed to at least October 1, 1981. No other state medical society has a similar guarantee . . . to our knowledge.

2. Connecticut doctors currently pay premiums that are among the lowest in the nation. Only Mississippi, New Hamsphire and Oklahoma had lower indicated premium rates at the time of the survey.

3. Excess liability insurance of up to $5,000,000 is available to each physician or surgeon. In most states, doctors are unable to get protection that high.

4. Program is written on a "cost plus" basis. Consequently, if premiums are too high, "excess" will ultimately be returned to insured doctors.

5. CSMS-Aetna "Loss Control and Education Program" has served as a model for other states.

Mr. Scherr suggested that Aetna furnish the following additional data to CSMS for each policy year on a continuing basis for each specialty:

— Number of physicians and surgeons insured.
— Amount of premium written.
— Number of paid claims.
— Amount of paid claims.
— Number of outstanding claims (reserves).
— Amount of outstanding claims (reserves).

Two members of the Committee attended the AMA Conference on Physician-Owned Insurance Companies on May 21, 1976, in Chicago. As a result of this Conference, the Committee invited Dr. Mannix and Mr. Fager of New York to attend its July 15th meeting. A lengthy and informative discussion was held on the implementation of the Medical Liability Mutual Insurance Company for New York physicians.

The Committee concluded that the situation was such in Connecticut that the Society would not establish its own company, but that it should keep attuned to the developments in those states which do have a physician owned company.

Attempts have been made to utilize Connecticut malpractice cases as the base of educational programs. This has been a difficult problem. If the medical cases are too highly "sterilized" they become meaningless. If they are too specific, the use of the case might be violating the privacy of the physician or physicians involved.

Since the Aetna has an individual policy with the individual doctors, it would be necessary to state somewhere in the agreement that as part of this coverage the doctor would allow the Aetna to use any malpractice case, in a sterilized form, as educational material for the benefit of the entire CSMS membership.

There seems to be a feeling that to benefit from the CSMS-Aetna program that the individual member would have to give up a degree of his privacy as long as he is assured all necessary precautions would be taken to protect his identity in the review of a case.

The effect of the 10% increase in premiums and the reclassification of several hundred physicians into higher risk categories was covered in two issues of *Connecticut MD.*

The Committee will continue to observe the reclassification system. Through pressure by the Committee and complaints from some of the specialists, the Aetna decided to modify its position on the questionnaire and has in turn reduced the premiums for some physicians. The Committee has urged Aetna to use the expertise of its members in modifying the new reclassification system.

The withdrawal from all policies of the consent to settle agreement has generated a great deal of concern. Again, through the efforts of the Committee, the Aetna did adopt a mechanism which was very similar to that proposed by CSMS. This mechanism will have to be observed over the next year in order to protect the physicians from any unwarranted settlements by the insurer. The mechanism puts the responsbility for objecting to a settlement on the physician involved in a suit *and was evolved in response to a subject directive of the House of Delegates 11/17/76.*

The mechanism was reviewed in an issue of *Connecticut MD,* but is repeated here as very important information.

1. During the course of the claim investigation, the doctor will have the opportunity to discuss the specifics of the allegations with the Aetna's claim adjustors. If the doctor objects to settlement and feels strongly that his case should be defended, he should write to the Society stating his objections along with an outline of his reasons.
2. The Society will notify the Account Supervisor and the Professional Liability Committee who will review the case. If disposition cannot be resolved and the doctor continues to object to settlement, the Account Supervisor will arrange for review by a Claim Defense Panel.
3. The decision of the panel will be transmitted as a recommendation to the Aetna through the Account Supervisor.
4. In their analysis of the case the Aetna will give consideration to the recommendation of the defense panel; however, the final decision as to defend/settle will rest with the Aetna.
5. When a case has been settled the Aetna will notify the physician in writing.

While the results of such a review have never been binding upon Aetna, they are of value to their claim personnel in the disposition of malpractice claims. When a favorable settlement opportunity arises before the panel review is consummated, the intended settlement will be explained to the doctor by Aetna's Account Supervisor.

CSMS PROFESSIONAL LIABILITY RATES 1976-77

Class	*Primary Coverage 100/300,000—Physicians 250/500,000—Surgeons*	*Office Coverage*	*Scope*	*Total*
I	698	30	293	1021
II	1256	30	468	1754
III	2536	30	607	3173
IV	3378	30	784	4192
V	4221	30	961	5212
VI	5063	30	1138	6231
VIII	6747	30	1493	8270

The President of the Society, an ex-officio member of the Committee, and Mr. Tomat of the CSMS staff have attended two national meetings of the eight state societies insured by the Aetna for professional liability. Meeting in Dallas and in Philadelphia at the time of the AMA meetings, the group was able to compare the problems each state had with the Aetna program.

The group registered dissatisfaction with the reclassification system and urged the Aetna to reconsider the withdrawal of the consent to settlement clause.

The Committee studied the CHA Model Policy on Informed consent and submitted a report to the Council. This was covered in an issue of *Connecticut MD* and the entire statement was published in *Connecticut Medicine.*

The Committee will continue to study new ideas related to professional liability and does encourage participation by the CSMS members.

In 1976 over a hundred presentations were made to hospitals trustees, administrators, and medical staff. There were many more educational meetings with small groups of doctors on various phases of malpractice.

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Kevin E. Conboy, Greenwich
Everett B. Cooper, Bridgeport
David L. Copen, Danbury
Robert Gilligan, Stamford
Henry L. Harris, Stamford
Cheryl V. Hawkins, Greenwich
Herbert I. Hermele, Fairfield
Robert A. Herzlinger, Bridgeport
William E. Huckabee, Greenwich
Stephen W. Kingsley, Danbury
Paul D. Krieger, Greenwich
Maureen H. Kunkel, Trumbull
Richard H. Landesman, Darien
Lawrence A. Lefkowitz, Norwalk
Stephen R. Levinson, Fairfield
Gerald Lieberman, Westport
Richard J. Lisi, Norwalk
Marshall Mandell, Norwalk
Stephen P. Michaelson, Darien
Patrick Neligan, Ridgefield
Charles Ney, Stamford
Daniel E. Nijensohn, Bridgeport
George A. Patterson, Norwalk
David M. Reed, Danbury
Robert L. Ruxin, Ridgefield
Charlene K. Silverman, Wilton
Denis M. Sivak, Westport
Edward M. Staub, Fairfield
Michael N. Suchenski, Darien
Abdur R. Tai, Darien
Rafig Tai, Stamford
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Charles Jay Okstein, Willimantic
Sanford Michael Rosenberg, Willimantic
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Summary of Actions
Council Meeting

Wednesday, June 8, 1977

I. Attendance

Present in addition to the Vice Chairman, Dr. G.W. Van Syckle, were: Drs. Friedberg, Freedman, Backhus, Johnson, Ragland, Jr., Spitz, Hess, Canzonetti, Bradley, Cramer, Fabro, McGarry, Sadowski, Harkins, James, Mendillo, Sonnen, E. Beck, Horrax, Magram, Eslami, Parrella and Middleton.

Also present were: Mrs. Lindquist, Mrs. Arafeh (Auxiliary), Mr. Sweeney, Mr. Brunell, Mr. Tomat (FCMA) and Dr. Richards.

Absent were: Drs. Grendon, Kamens, Krinsky, Whalen, Jameson, R. Beck, Vidone, Barrett and Zlotsky.

II. Routine Business

Approval of Minutes

As published and distributed, it was VOTED to approve the minutes of the meeting of May 12, 1977.

Life Memberships

It was VOTED to approve applications for Life Membership received from the following Active Members:

Vincent A. Cacace, Bridgeport
C. James Coppeto, New Haven
Marion Cusnir, Meriden
Dominic C. D'Ambruoso, West Hartford
Sidney E. Eisenberg, New Britain
Jack Gurwitz, Bloomfield
Louis Keller, Stamford
Saul Rosenberg, Bridgeport
Harold E. Speight, Middletown

Election of Student Members

It was VOTED to elect to Student Membership four Connecticut residents who are enrolled at U.S. medical schools.

Date of Next Meeting

The Vice Chairman set Thursday, July 7, 1977, as the date of the next meeting.

III. Old, New and Special Business

Resignations, Appointments, Etc.

(a) *Committee on Allied Medical Services:* It was VOTED to offer the chairmanship of the Committee to Howard Wetstone, Hartford, a member. Contacted by telephone Dr. Wetstone accepted the appointment.

(b) *Committee on Mental Health:* It was VOTED to accept the resignation of David Luchs, Colebrook, as a member of the Committee. Dr. Luchs' term (1973-78) has one year remaining. Noting that his replacement should be a non-psychiatrist, the Council VOTED to table the appointment of a replacement until the next meeting.

(c) *Committee to Study Perinatal Morbidity and Mortality:* It was VOTED to accept the resignation of Julius Landwirth, Bridgeport, as a member of the Committee.

(d) *CSMS Liaison Representative, U.S. Department of Agriculture Rural Development Committee (Connecticut):* It was VOTED to request George M. Rosenfeld, Portland, to accept appointment to this post, replacing G.S. Gudernatch, Sharon, resigned.

(e) *CSMS Representative, Connecticut Cancer Epidemiology Program Council:* Being advised that E. Tremain Bradley, Norwalk, has submitted his resignation as a member of the CCEP Council to its chairman, it was VOTED to accept this advisement with regret. It was further VOTED to nominate Hugh F. Lena, Jr., New London (an Alternate Representative) to replace Dr. Bradley in that post. Finally, it was VOTED to nominate Thomas J. Madden, New Britain, to replace Dr. Lena as Alternate Representative.

Communication re John E. Thayer, Hartford

It was VOTED to receive as information a communication from Edward E. Morse, Farmington, secretary of the Committee on Organ and Tissue Transfers, which brought to the Council's attention that John E. Thayer, Hartford, had served with distinction as chairman of the Committee (formerly the Committee on State Blood Bank) for more than twenty years. Dr. Thayer voluntarily stepped down as chairman for 1977-78 but remains a member of the Committee. The communication also requested that the Committee's expression of thanks to Dr. Thayer for his outstanding service be published in the Journal.

It was further VOTED to award Dr. Thayer a "Certificate of Service" to the Society at the 1977 semi-annual meeting of the House of Delegates in recognition of his contributions to the work of the Society, and to approve publication in the Journal of the Committee's expression of thanks to its retired chairman for a job well done.

Report—Committee on Accident Prevention and EMS

It was VOTED to receive as information a two-part report submitted by the Committee. It was further VOTED to accept the Committee's response to a request of the Council for an evaluation of a "reported proposal to create an ever-enlarging bureaucracy to supervise the operation of emergency medical services in Connecticut". In brief, it was the opinion of the Committee that when a qualified director of the Office of Emergency Medical Services has been located and employed, and staff is given proper direction, "we can look forward to an efficient, simplified and effective direction of EMS in Connecticut".

Acting on the second section of the report, the Council VOTED to approve a proposal of the Committee that "the Society promote the teaching of EMS functions, including cardio-pulmonary resuscitation techniques, in the public schools as part of the health education curriculum", and to authorize the Committee "to enlist the cooperation of appropriate private and public agencies". Notice of this action is to be transmitted to the State Board of Education.

Report—Committee on Professional Liability

It was VOTED to receive as information a report of the subject Committee, which consisted of the minutes of a meeting of the Committee 5/19/77 and an attachment to the minutes titled: "Concerning the Professional Liability of Referring Physicians".

The Council took action on several sections of the report as follows:

(a) *Liability of Referring Physicians:* VOTED to accept the subject statement for filing. Further VOTED to refer the following motion to the Committee on Professional Liability for discussion with Aetna representatives and report to the Council: "That Aetna be requested to review the liability of referring physicians, and that it develop an educational program for physicians which concerns itself with the liability involved in the referring process". Finally, VOTED to have published in "Connecticut M.D." an alert to the membership re the problem of possible professional liability of referring physicians—to include a quote of a legal opinion contained in the subject report, and to advise the membership that steps are being taken to obtain clarification on the extent of such liability and what the physician may do to minimize or avoid it.

(b) *CHA Proposal to Form Captive Insurance Company:* VOTED to instruct the Committee on Professional Liability to investigate the Massachusetts and New Jersey captive insurance companies re the details of operation and experience and report to the Council on same by October 1.

Site and Date for 1977 Semi-Annual Meeting, House of Delegates

It was VOTED to approve the Park Plaza Hotel, New Haven, as the site of the subject meeting, and Thursday, November 17, 1977 as the date. It was further VOTED to inform Delegates and Alternate Delegates of the place and date of the meeting as soon as possible after 9/1/77.

Further Report on Meeting with Administration re Medicaid

It was VOTED to receive as information further reports on this meeting with Administration representatives (4/14/77) on the Medicaid Program as follows: (a) Supplementary verbal presentations on the matters discussed at the meeting, given by Dr. Friedberg and Dr. Spitz; (b) A written report submitted by Charles Polivy, chairman of the Liaison Committee with the Department of Social Services, which provided specific and detailed information on the discussions held.

Being apprised that the Program's budget for the coming fiscal year will be increased by $500,000-$600,000, it was VOTED to recommend to the Liaison Committee with the State Department of Social Services that the Committee suggest to the Department that additional funds be used in whatever way the Department considers would best serve the objectives of the Medicaid Program.

Dr. Polivy also reported that the Department has been sympathetic to the Committee's recommendation that prompt action be taken to simplify the new billing procedures for services rendered to Medicaid beneficiaries who have Medicare coverage, and "is in the process of making changes (in the billing procedure) effective within the next 60 days". This report was in response to a request that the Committee seek to bring about simplification of the new billing procedures.

Staff Report on Storage and Ownership of CACS Data

It was VOTED to receive as information a subject Staff report which included: (a) An excerpt from the Society's contract with HSMHA which clearly established the Society's ownership of the Study data, subject to certain limitations imposed by the HSMHA Project Officer; and (b) Information relevant to storage of the Study data (paper/cards and on tape) when the Study has finally been completed. (AMB 6/8/77 "E").

Following lengthy discussion of the report, the Council VOTED (a) to acquire, by purchase if necessary, *all* papers, correspondence, cards and computer tapes relating to the Study, wherever presently stored; (b) to place discussion and action on the final CACS report as the first item on the agenda for the next (July 7) Council meeting. Copies of the report are to be mailed to Council members forthwith, noting that the report is to be kept "confidential" by the members; and (c) that Mrs. Riedel be requested to furnish the Council with a copy of any letter received from the Project Officer which authorizes her to use CACS data as the basis for a Ph.D. thesis (as approved by the Council on 5/12/77), or other use.

Report—Ad Hoc Committee on Seminars re Medical Care Costs

It was VOTED to receive as information a report submitted by the subject Ad Hoc Committee, and to approve two recommendations (as amended) which were contained in the report.

The first recommendation called for the implementation of a meeting for hospital chiefs of staff, hospital administrators or their designates, members of the Society's Committee on Hospitals, members of the Ad Hoc Committee and other interested parties—to include representatives of the four PSROs in Connecticut. The purpose of the meeting will be to promote the establishing of a committee of each hospital's medical staff which would concern itself with studying "what role the physicians at that hospital can play in reducing hospital costs". The Ad Hoc Committee, in cooperation with CSMS Staff, will plan and make arrangements for the holding of this meeting.

The second recommendation, as amended, called for a series of "Seminars on Medical Care Costs", the first of which is to be held "at a time and place to be determined by CSMS Staff". The purpose of the first seminar will be to "intensively study the use, abuse and alternatives, if any, in the employment of pharmaceutical services by the hospital staff". Chaired by Dr. Friedberg, President, the panel conducting the seminar will be a clinical pharmacologist, a physician interested in infectious diseases, a non-hospital based physician specializing in medicine or surgery and a physician concerned with intensive care. Persons to be invited to attend are: Members of the CSMS Committee on Hospitals, representatives of the Connecticut Hospital Association, Blue Cross and private insurers, chairman of the Commission on Hospitals and Health Care, the Commissioner of Health, the presidents of the component County Medical Association and other interested parties. As in the case of the first recommendation, the Ad Hoc Committee, in cooperation with CSMS Staff, will plan and arrange for the holding of this seminar.

Presentation of 1977 Grants to CSMS Medical Student Financial Aid Funds

President Friedberg presented CSMS checks in the amount of $4,000 to each of the Connecticut medical schools as the 1977 grants to the CSMS Medical Student Financial Aid Fund. Joining the Council to accept the grants were: For the Yale School—Dean Robert Berliner, Assistant Dean Howard Levitin, Assistant to the Dean Lewis Caplan and Ms. Patricia Brown, Class of 1980, Student Representative. For the UConn Medical School—Dr. Steven Bongard, Assistant Dean for Student Affairs. Assisting the President in making the presentations was Herbert D. Lewis, New Haven, Chairman of the Society's Committee on Cooperation with the Medical Schools of Connecticut.

N.B.: *The foregoing is a summary of the proceedings and actions of the Council on June 8, 1977. Detailed minutes of the meetings are on file at 160 St. Ronan Street, New Haven, for perusal by any interested member of the Society.*

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INDEX TO ADVERTISERS

Aetna Life & Casualty	418
Ayr Insurance Agency	428
Boehringer Ingelheim, Ltd.	458 & 459
Broadsight Division, Ameropean Corp.	445
Burroughs Wellcome Co.	bet. 450 & 451
Classified Advertising	463
Colonial Bancorp., Inc.	1
Connecticut Blue Cross	427
Elmcrest Psychiatric Institute	432
Group Insurers, Inc.	463
Eli Lilly & Co.	2
Merck, Sharp & Dohme	443 & 434
New York Fertility Research Foundation, Inc.	463
Physicians Planning Service Corp.	463
Roche Laboratories	IFC, bet. 450 & 451, 465 & 466, IBC, BC
Roerig & Co.	bet. 426 & 427
Smith, Kline & French Laboratories	bet. 450 & 451
The Upjohn Co.	bet. 426 & 427

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scientific:

Rosemarie Lucianin Fisher and Henry J. Binder **467** Cholesterol Cholelithiasis
Richard V. Lee and William L. Risser **470** A Case of Fatal, Congenital Syphilis in Connecticut
Dale Rowett, Robert Zavod, Ivan Damjanov, and David B. Baldwin **473** Renal Vein Thrombosis
Stewart A. King **477** Enteritis and the Continent Ileostomy
Usha Lakhani **479** Pneumococcal Osteomyelitis and Arthritis in an Infant

special articles:

Luke LiCalzi and Morris D. Kerstein **485** Lymphedema: An Overview
Medical Grand Rounds of the University of Connecticut:
Stephen B. Sulavik and Thomas J. Godar **495** Adult Respiratory Distress Syndrome
Humanistic Studies in Medicine:
Nicholas Rescher **501** Ethical Issues Regarding the Delivery of Health-Care Services
AMA Washington Office **507** What It Does and How It Functions
Connecticut Blue Cross **509** Utilization Review
William A. Regan **513** What If the Surgeon Doesn't Want Counts?

LIBRARY
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editorials:

Noel I. Robin **515** The Apollo Fallacy
Stephen Fleck **516** Woman's Inhumanity

departments:

Robert U. Massey **514** Reflections from the Dean's Office
William R. Richards **517** From the Executive Director's Office
CSMS—Annual Reports **521** Judicial Committee
522 Delegates to AMA Meeting
527 Cancer Coordinating Committee
528 Committee on Public Health

general:

511 Month in Washington
516 Notices
530 Residents Merit Award
532 In Memoriam
533 Physician Placement Service

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Cholesterol Cholelithiasis

Rosemarie Lucianin Fisher, M.D., and Henry J. Binder, M.D.

Cholelithiasis is present in approximately 16 to 20 million Americans[1] developing at a rate of probably 1 million people per year and resulting in 0.3 million cholecystectomies per year at a cost of 0.5 billion dollars and 6,000 lives per year. Cholecystectomy is a more common operation in women than appendectomy.[2] These facts provide at least one of the major reasons for the recent upsurge of research in the pathogenesis and treatment of gallstones.

The chemical composition of gallstones varies. Approximately 80% of all gallstones analyzed in the United States are classified as "cholesterol" stones[3] which means that about 70% of the stone is composed of cholesterol; the remaining weight is made up by bile acids, calcium, bile pigment and protein. If the percentage of calcium is small, the stones are radiolucent, while if the calcium content is increased, the stones eventually become radiopaque. Pigment stones comprise about 10% of gallstones in the United States and are found primarily in patients with hemolytic disorders,[4] with some forms of parasitic infestations and with some cases of biliary obstruction.[5] The major components of these stones are bile pigment, calcium and an organic matrix and approximately 10% of these stones are radiopaque. Since the major thrust in research has been in the pathogenesis and therapy of cholesterol gallstones, this brief review will deal only with this form of biliary tract disease.

Consistent with recently described physicochemical properties, the development of cholesterol gallstones follows the three stages of crystal formation-saturation, crystallization, and growth.[6] In any theory of crystal formation, a solution must first reach a point where a single component in the solution is no longer totally dissolved. At this point the solution is said to be saturated with that component. The solution is supersaturated when additional amounts of the component are added to the solution. At this point, that component will begin to precipitate in the solution and crystallize. Bile must first be saturated (or supersaturated) with cholesterol for cholesterol cholelithiasis to develop.[7,8] One must first look at the in vitro situation in order to determine when cholesterol saturation is reached. Admirand and Small initially described cholestrol saturation of bile by means of triangular coordinates: a method by which a single point within a triangle represents the relative molar proportions of cholesterol, bile acids and phospholipids.[9] Normally, cholesterol is virtually insoluble in water, but, when combined in the proper ratio with bile acids and phospholipids, cholesterol forms mixed micelles which increase its solubility by approximately two million times.[10] It has been found that there is a boundary zone within the triangular coordinates. That is, there is an area in the triangle which represents the relative composition of the solutions in which cholesterol is soluble. Cholesterol precipitates in solutions whose compositions are depicted at points outside this area. Bile saturated with cholesterol has been called lithogenic bile. Another method of expressing cholesterol solubility is the lithogenic index of bile which also refers to the cholesterol saturation in bile.[11]

What is the situation in man? If the bile of patients without gallstones is examined, their bile is undersaturated with cholesterol, or non-lithogenic. One might in fact say that these patients have "good bile". What about the patients with cholesterol gallstones? As expected, it is found that these patients have bile saturated with cholesterol, or lithogenic, or "bad bile". The question that then must arise is whether this "bad bile" is a consequence of the gallstones or whether it is the cause of them, and secondly, is lithogenic bile formed by the liver or by the gallbladder and why?

Let us first answer the question of whether the "bad bile" or lithogenic bile is caused by the gallstones or is the cause of them. In the American Indian woman, there is an approximate 70% prevalence rate of cholesterol gallstones.[12] When one examines the bile of women of the same population who do not have discernible stones, lithogenic bile is found.[13] Although there has been no long term follow-up of these patients, it is felt that these individuals are the prime candidates for developing cholesterol gallstones. Thus it is likely that lithogenic bile precides the formation of the gallstones and is not the consequence of them.

Where is the site of formation of this abnormal bile and what causes the production of lithogenic bile? In other words, does the liver secrete non-lithogenic bile

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ROSEMARIE LUCIANIN FISHER, M.D., Assistant Professor of Medicine, and HENRY J. BINDER, M.D., Associate Professor of Medicine; both of the Yale University School of Medicine.

and the gallbladder convert this bile to lithogenic bile? Or does the liver produce and secrete lithogenic bile and the gallbladder merely concentrate this bile? Presently, most data suggest that the abnormal bile is secreted by the liver[7,8] and that only in patients with primary cholecystitis, pre-existent stones or biliary dyskenesia, does the gallbladder itself play a role in the development of abnormal bile. There appears to be approximately three ways in which lithogenic bile might be formed: 1) decreased bile acid pool size;[14] 2) over-sensitive feedback mechanism (which may indeed cause #1);[15,16,17] and 3) increased secretion of cholesterol.[18]

A decreased bile acid pool size may be secondary to one of two causes. First, there may be excessive loss of bile salts, which does occur in patients with ileectomy, ileal bypass, or ileal disease. Second, it is possible that there is decreased synthesis or secretion of bile acids.[14] Patients without ileal disease who have gallstones have been shown to have decreased bile acid pool size.[19,20] How could this decreased secretion or synthesis be accounted for? Bile acids are the major catabolic and excretory products of cholesterol and are synthesized in the liver.[21] The rate limiting enzyme in the formation of bile acids is 7 α hydroxylase[22] and is controlled by the amount of bile acids returning to the liver. It has recently been shown that this enzyme is reduced in patients with cholesterol cholelithiasis.[17,23] One must remember, however, that decreased synthesis does not definitely imply a decreased pool size or secretion rate.

The second possibility is that of an oversensitive feedback mechanism.[15,16,17] Since the normal response to decreased bile acid pool size is increased synthesis and secretion, it is postulated that in patients with cholesterol cholelithiasis this feedback mechanism is suppressed. The liver would simply be "oversensitive" to the amount of bile acids returning to the liver and not respond to this decreased amount. The underlying mechanism for this sensitivity is not known. It is possible that this may indeed be a cause of decreased bile acid pool size, by producing less bile acids than usual, because of the lesser amount needed to activate the response.

Finally, it is possible that some patients might have an increased rate of cholesterol secretion.[18] The enzyme 3-hydroxy-3-methyglutaryl coenzyme A (HMG-CoA) reductase is the rate limiting enzyme in the synthesis of cholesterol. If for some reason there was increased synthesis of cholesterol, this may, in fact, be responsbile for the increased secretion of cholesterol. It has been recently shown that patients with cholesterol gallstones have increased activity of this enzyme in their livers.[17,23] One can easily postulate that these patients have both increased synthesis and secretion of cholesterol.

If one accepts these three mechanisms as the basis for the supersaturation of bile with cholesterol and for subsequent formation of gallstones, several possibilities can then be raised as methods by which these stones could be dissolved, or for bile to be converted to non-lithogenicity: one could attempt to reduce the biliary secretion of cholesterol without a parallel fall in bile salt and phospholipids secretion and/or increase the biliary secretion of bile salts and phospholipids without increasing biliary cholesterol proportionately. It has been shown that human cholesterol gallstones can be dissolved by suspending them in animal bile which is less than saturated with cholesterol, so the theory should be correct.

How does one go about making these biochemical and physiological changes? In 1939, Rewbridge[25] gave a crude bile extract to patients with gallstones and found that 40% of the patients had their stones disappear. In 1957, Cole et al[26] reported similar findings in patients again treated with crude bile extract. It was thus that individual bile acids were used in an attempt to dissolve cholesterol gallstones.

Cholic acid was initially used, but was not shown to have any effect on the cholesterol saturation of bile.[27] In 1969, Thistle and Schoenfield were able to show that in patients given 1 gm per day of chenodeoxycholic acid (CDCA), the cholesterol saturation of bile was decreased.[28] How does this happen? First, simply by the administration of exogenous CDCA, the bile acid pool size is increased.[20] With this increase in pool size, the hepatic synthesis of bile acids should be decreased, but the exogenous administration of CDCA is enough to maintain a large pool size. Second, it has been shown that the level of 7 α hydroxylase is increased in patients on CDCA, thus increasing the synthesis of bile acids from cholesterol.[29] Third, it has also been shown that patients on CDCA actually have a decreased synthesis[17] and secretion of cholesterol.[30] The probable reason for this is that the enzyme HMG-CoA reductase is decreased in the livers of patients of CDCA.[17] With this the rate limiting enzyme in the synthesis of cholesterol, it follows that there would be a decrease in cholesterol synthesis. It appears, then, that CDCA fulfills both goals of medical therapy: one, to increase the bile acid pool size, and two, to decrease biliary cholesterol output.

CDCA has now been used in several small studies, the first by Danzinger et al in 1972 at the Mayo Clinic.[20] They demonstrated that in 4 out of 7 patients, on varying dosage regimens, there was partial or complete gallstone dissolution. The most recent report from the Mayo Clinic showed that in 81% of patients with radiolucent stones, who received greater than 15 mg. per kg. per day of CDCA, there was either stone disappearance or a progressive decrease in stone size.[31] From these reports and from several others from Europe, [32,33,34] it is quite evident that CDCA given to patients with radiolucent stones will result in stone resolution or disappearance in a significant number.

What happens however, after CDCA therapy is withdrawn? It appears that within approximately three months after gallstone dissolution, if the treatment is discontinued, bile will again become saturated with cholesterol.[35] It has been noted that in approximately 10% of patients in whom CDCA therapy is discontinued, gallstones will re-appear. Thus, if CDCA is to be used as a therapeutic measure for cholesterol cholelithiasis dissolution, prophylaxis must be considered. It has yet, however, to be decided, whether the reappearance of cholesterol saturation in a bile sample definitely means reappearance of stones.

If CDCA is the agent for cholesterol gallstone dissolution, one must then consider the side effects. The most common side effect appears to be diarrhea[36, 37, 38] which probably is completely dose related and either disappears[38] or gets better with dose reduction.[36, 37] Two other side effects have been postulated. The first one, hypercholesterolemia, was postulated because of the block of cholesterol degradation to bile acids, which might be caused by feeding exogenous CDCA. This however has not occurred. With the recent demonstration of increased 7 α hydroxylase,[29] it would follow that there would not be the backup of cholesterol, but rather increased degradation. Also, triglycerides appear to decrease in patients receiving CDCA.[39] The last possible side effect may be that of hepatotoxicity. In all studies to date, hepatotoxicity occurs only in baboons and rhesus monkeys,[40] but *not* in humans. Transient elevations of SGOT have been seen in up to 25-30% of patients, but these return spontaneously to normal with continued bile acid treatment.[36] Liver biopsies in these patients have not demonstrated any specific pathology, but there have been no pre-treatment liver biopsies. In order to define further the efficacy and safety of the use of CDCA, the National Institutes of Health (NIH) has sponsored the establishment of the National Cooperative Gallstone Study (NCGS). Nationwide, there are 10 treatment centers, and Yale University has been selected as the treatment center for this area. Patients of ages 21-79, excluding premenopausal females without tubal ligations, with radiolucent gallstones and a functioning gallbladder, are being accepted into the study. Patients will be randomized into one of three treatment groups: high dose CDCA, low dose CDCA, or placebo. Patients will be treated for two years and will be monitored by oral cholecystograms, liver function tests, serum lipids and hematologic factors. It is felt that at the conclusion of the study, both the efficacy and safety of CDCA will be fully assessed.

Other studies have been performed on various drugs in order to assess the possible use of other agents in the dissolution of gallstones. Phenobarbital was felt to be a possible agent since it is known to induce hepatic enzymes, possibly 7 α hydroxylase, and thus increase the bile acid pool size.[17, 41] In trial studies, however, phenobarbital does not decrease gallstone size, although phenobarbital decreases cholesterol saturation and dissolves crystals.[42] Therefore, phenobarbital may not be fully effective because it also induces hepatic cholesterol synthesis.[17]

Other approaches have been suggested to dissolve gallstones. Cholestyramine has been attempted, but found not to be of any use.[43, 44, 45] Clofibrate actually increased the ratio of cholesterol to bile salts in bile.[45] Direct feeding of phospholipids has been attempted, but does not change biliary composition.[46] This is probably due to the fact that most phospholipid is metabolized in the gut and does not undergo an enterohepatic circulation.[47] One of the most recent chemicals to be attempted and probably the most promising after CDCA is glycerophosphate, which increases biliary phospholipids in rats,[48] and decreases biliary cholesterol in man.[49] The use of this agent in the dissolution of gallstones, however, has yet to be fully investigated. The final method to be attempted has been that of dietary manipulation—primarily with bran. Bran blocks the appearance of deoxycholate in the bile with a commensurate increase in the amount of CDCA, thus increasing the cholesterol solubility.[50] The efficacy of bran, however, in the dissolution of gallstones also has not yet been fully investigated.

In summary, at the end of 1977, cholesterol cholelithiasis may be a medical disease more than a surgical disease. Progress is rapidly occurring in the pathogenesis of cholesterol gallstones and through the understanding of this process, we may be able to find the most appropriate means for the medical dissolution of gallstones.

References are available from the author on request.

A Case of Fatal, Congenital Syphilis in Connecticut

Richard V. Lee, M.D., and William L. Risser, M.D.

ABSTRACT—Congenital syphilis is a preventable disease. Detection of maternal infection by obtaining serologic tests for syphilis early and late in the pregnancy, and by careful evaluation of any suspicious genital lesion is essential for preventing the disease. Treatment of the mother with appropriate antibiotics during pregnancy will eradicate infection in the fetus.

The epidemic of venereal diseases that has afflicted sexually active adolescents and young adults has focused attention about the manifestations of sexually transmitted diseases in adults. Less emphasis has been given to the problem of venereal diseases among neonates, perhaps because advances in contraception have reduced the incidence of congenital infection by sexually transmitted organisms by reducing the occurrence of pregnancy. The purposes of this paper are to describe a recent neonatal death from congenital syphilis, to briefly review the problem of syphilis during pregnancy and in the neonate, and to reemphasize the attention to venereal syphilis during pregnancy. For more extensive discussions of the problem the reader is referred to the three references.

Case Report

A 2,480 gram female infant (#85-56-50) was transferred to the Yale-New Haven Hospital at 4 hours of age because of respiratory distress, petechiae, hepatosplenomegaly, and anemia.

The patient was delivered of a 25-year-old married primigravida after 35 weeks gestation. Routine prenatal evaluation, including serologic test for syphilis (VDRL) was normal or negative at 16 weeks of pregnancy. The mother developed vulvar lesions during the 26th week of pregnancy which were felt to be a herpes virus infection. However, viral cultures and serologic tests, including tests for syphilis, were not done.

At birth the patient was severely depressed: Apgar scores at one and five minutes were 2. She required endotracheal intubation and artificial ventilation for thirty minutes before breathing spontaneously. Extensive petechiae, enlargement of the abdomen, and generalized subcutaneous edema were observed in the delivery room. In the nursery and on arrival at the Yale-New Haven Hospital she was found to have pallor, purpura, generalized lymphadenopathy, massive hepatosplenomegaly, tachypnea with retractions and grunting, and marked hypotonia.

Immediately after birth the Hct. was 23.7%, Hgb. 8.0 gms.%, WBC 24,100 with 38 mature polymorphonuclear leukocytes, 5 bands, 52 lymphs, and 5 monos. The peripheral smear showed 12 nucleated RBC's per 100 WBC's. Platelet count was 1,700. The Coomb's tests were negative; both mother and child had blood type A, Rh positive.

She was transferred to the Yale-New Haven Hospital for the management of suspected congenital infection. On arrival the Hct. was 11%, Platelets 15,000, WBC 13,200 with 50 segs, 31 bands, 15 lymphs, and 4 monos. Prothrombin time was 41.4 seconds (Control 12.5 seconds) and partial thromboplastin time, 2 minutes (Control 31.2 seconds). Chest x-ray showed changes of hyaline membrane disease diffusely. Multiple serological tests, viral and bacterial cultures, and protein electrophoretic studies were obtained. Despite treatment with ampicillin and kanamycin, fresh frozen plasma, packed red blood cells, and oxygen, she died at age 30 hours.

The day after the child died her VDRL was reported positive at a dilution of 1:64. The FTA-Abs was reactive. An FTA-Abs specific for IgM, done by the Center for Disease Control, was positive. Serologic tests and cultures for other viruses and bacteria were negative. The mother's VDRL and FTA-Abs were not strongly reactive and she received treatment for early syphilis.

Discussion

Pathogenesis

Infection of the fetus follows maternal spirochetemia after the 16th week of pregnancy. Infection before this time is exceedingly rare. Spirochetes do not cross the placenta until after the 16th week of pregnancy, presumably because they are unable to penetrate the Langhan's layer of the placenta which does not begin to atrophy until after the 16th week of gestation.

The risk of fetal infection is proportional to the intensity of the maternal spirochetemia and therefore the stage of maternal infection. Acquisition of infection during pregnancy with the resultant spirochetemia of primary and secondary syphilis virtually always causes infection of the fetus; whereas in a woman with untreated syphilis of less than 4 years duration which is latent at the beginning of pregnancy, there is a 30% chance of fetal infection. Latent and late syphilis are characterized by the presence of relatively few spirochetes and rare episodes of spirochetemia. However, even though the risk of maternal spirochetemia diminishes with the duration of the untreated disease, the risk of fetal infection persists.

The outcome of infection of the fetus is related to the time during pregnancy that maternal spirochetemia and inoculation of the fetus occurs. A fetus infected at the fourth month may die in utero and the pregnancy may be terminated by spontaneous late abortion. A fetus infected somewhat later may be

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delivered as a stillbirth or as a fatally ill neonate as in the patient described above. The appearance of a primary chancre usually takes two to ten weeks from the time of maternal inoculation. Dissemination of spirochetes via the bloodstream precedes the development of the chancre. It is likely therefore that the mother of the patient presented was infected and having spirochetemia during the fifth or sixth month during gestation. The later in the course of pregnancy the fetus is infected, the greater the likelihood of live birth and onset of clinical manifestations after birth. For example, a child infected a week or two before delivery will appear healthy and will not develop clinical disease until several days or weeks have passed.

The course of syphilis in the child follows a similar pattern to the course of the disease in the adult. Early disease is characterized by large numbers of spirochetes, acute mononuclear inflammatory infiltrates, and high titers of non-treponemal Wasserman antibodies. Late disease is characterized by small numbers of spirochetes, granulomatous inflammation, variable but usually low titers of non-treponemal Wasserman antibodies, and hypersensitivity phenomena such as interstitial keratitis and non-suppurative arthritis (Clutton's joints). Congenital syphilis is also characterized by a number of stigmata such as Hutchinson's teeth, rhagades and Saber shins, that are the residual scars and deformities produced by early or late lesions.

Management of the Mother

The birth of a congenitally syphilitic infant is a preventable obstetric event. Adequate treatment of the mother with an antibiotic that crosses the placenta, such as penicillin, eradicates the disease in the fetus. Detection and treatment of the infected mother is the crux of management for congenital syphilis. Because a mother may acquire syphilis at any time during pregnancy, a single examination and serologic test for syphilis (STS) early in the antepartum course is not adequate. A second STS using maternal blood should be done shortly before the delivery or at the time of delivery. Any genital lesion or suspicious cutaneous lesion appearing during gestation must be evaluated with repeat STS, darkfield examination and a careful history and examination for potentially sexually transmitted infections.

The routine STS used for screening in Connecticut is the VDRL Test. The VDRL test utilizes cardiolipin antigen and detects antibodies that are not specific for treponemal antigen but which are produced by the interaction of the spirochete and the inflammatory response to infection. The VDRL and other so-called non-treponemal tests such as the Kolmer and Hinton tests, can be quantitated using serial dilutions of serum. The quantity of non-treponemal antibodies is proportional to the number of spirochetes and the inflammatory response. Non-treponemal serologic tests are therefore strongly positive in early stages of the infection. Treatment or progression of the infection to latency in the absence of treatment is accompanied by the fall in titer of non-treponemal antibodies. Infection by T. pallidum also induces the appearance of antibodies specific for spirochetes. These antibodies tend to persist for life despite treatment and the natural progression of the infection. Measuring treponemal antibodies using fluorescent techniques, the fluorescent treponemal antibody-absorbed (FTA-Abs) test, is available through the state health department laboratories. The FTA-Abs test is useful in diagnosis but is not suitable for monitoring treatment because once it becomes positive, it tends to remain positive for the life of the patient even with adequate treatment.

Routine prenatal screening can be done using only the VDRL test. Any patient with a positive VDRL should have an FTA-Abs test done to confirm the diagnosis. Any patient with suspicious lesions should have a VDRL and FTA-Abs test done simultaneously. If the FTA-Abs has been positive in the past, a repeat test will not be helpful. For the woman with a history of syphilis or positive STS in the past, the clinician must take care to ascertain the nature of treatment and the clinical and serological response to treatment. Indications for treatment or retreatment of syphilis or positive serological tests for syphilis during pregnancy are:

1. Untreated syphilis at any state;
2. Inadequately treated syphilis at any stage;
3. Previous delivery of a congenitally syphilitic infant despite presumed adequate treatment;
4. A rising titer of non-treponemal antibody despite presumed adequate treatment.

Long acting Benzathine penicillin is the drug of choice. Treatment of the mother will concomitantly cure the fetal infection. The dosage is the same as for the same stage of syphilis in non-pregnant adults. An intramuscular dose of 2.4-4.8 million units of Benzathine penicillin G is adequate therapy for early syphilis in both the pregnant and non-pregnant female. The reader is directed to the references for more detailed discussion of antibiotic treatment for syphilis.

Management of the Neonate

Active syphilis in the neonate can be indistinguishable from other congenital infections such as toxoplasmosis, rubella, and cytomegalovirus, all of which may produce hepatosplenomegaly, thrombocytopenia, purpura, and anemia. The disease may be confused with erythroblastosis fetalis. Syphilitic periostitis can produce pseudoparalysis that may be mistaken for birth injuries. The diagnosis should not be obscure if a knowledge of the mother's history and serologic tests for syphilis are ascertained. Darkfield examination of nasal discharge or serum, and pain from clinical lesions establishes the diagnosis. Interpreting serologic tests for syphilis in the infant can be confusing because maternal IgG crosses the placenta and will cause both treponemal and non-treponemal test results to be positive in both cord and fetal blood. Distinguishing between passive transfer of STS reactivity and active fetal antibody response to infection is possible utilizing the facts that maternal IgM does not cross the placenta, that the major antibody response of the fetus and neonate is IgM, and that passively transferred maternal IgG is cleared by the fifth or sixth month of life by the neonate.

To confirm the suspicion of active syphilis in the neonate the following serological tests will be useful:

1. Measure total fetal IgM: More than 20 mgms/100 ml. suggests intrauterine infection from any cause.
2. Perform an FTA-Abs test on fetal serum using anti-IgM antibody. This test can detect the presence of fetal IgM specific for treponemal antigens.

In the acutely ill child therapy should not be withheld pending the results of these tests. A single dose of Benzathine penicillin, 50,000 units/kg. is adequate therapy. However, the acutely ill neonate is likely to be treated with two or more antibiotics until a diagnosis is established. A penicillin or cephalosporin antibiotic should be part of the antibiotic regimen as long as syphilis is considered a possibility.

The apparently healthy child of a mother with a positive STS can be tested as above. However, it is essential to follow the child with frequent quantitative non-treponemal antibody tests. A child with passive transfer of maternal antibody or a child adequately treated in utero will have falling titers and the non-treponemal test should become negative within three to six months. The child with active infection will have stable or rising titers of treponemal antibody.

REFERENCES

1. King A, and Nicol C: *Venereal Diseases*, 2nd Edition. London: Bailliere, Tindall and Cassell, 1969.
2. Lee RV: Sexually Transmitted Infections, in *Medical Complications During Pregnancy*. Burrow GN, and Ferris TF, Editors. Philadelphia: WB Saunders, 1975
3. Fiumara NJ: Venereal Diseases, in *Obstetric and Perinatal Infections*. Charles D and Finland M, Editors. Philadelphia: Lea & Febiger, 1973.

Cost of Medical Practice Records Sharp Increase

Soaring inflation, increased malpractice premiums, and higher wages and benefits for employees are the three main reasons it costs physicians more to provide medical service today.

This is the finding of an American Medical Association poll of a cross section of American physicians seeking their opinion on why medical costs are rising and how costs can be contained. Results were published in the Impact section of American Medical News, the AMA's weekly newspaper for physicians.

Physicians also believe government programs, such as Medicare and Medicaid, and expensive new technology are forcing costs of providing medical care higher, the poll indicates.

Nine out of ten M.D.s responding to the survey say that their practice overhead costs have increased in the last three years, with 44 percent estimating increases ranging between 26 per cent and 50 per cent. Some 42 per cent had increases of 25 per cent or less, while the remainder found their costs going up more than 50 per cent.

Overwhelmingly, physicians (85 per cent) believe that, taking all health services costs into account, the greatest savings can be effected in hospitals. Only 6.4 per cent think substantial cost savings could be effected in medical office practice.

The single most important step the physician can take in his own practice to contain costs is related to reducing malpractice premiums or decreasing the incidence of claims, poll respondents declare. Other suggestions for savings include more use of support personnel, increased patient volume handled more efficiently, more attention to budgets, reduction of overhead, and more careful purchasing of supplies.

Many physicians say the main way to reduce costs for patients is to order fewer tests, but they point out that malpractice is forcing them to practice more defensive medicine.

Government controls are not the answer, the physicians believe. "Experience has decreed that when the government gets involved, costs go up," one physician writes.

Renal Vein Thrombosis
Clinical, Radiographic, and Pathological Manifestations

Dale Rowett, M.D., Robert Zavod, M.D., Ivan Damjanov, M.D., Ph.D.
and David B. Baldwin, M.D.

ABSTRACT—A 39-year-old man developed nephrotic syndrome, and was found to have many of the characteristic pathological and radiographic manifestations of renal vein thrombosis as a consequence of membranous nephropathy. Initial clinical and radiographic studies did not suggest the diagnosis, but the renal histopathology, development of symptomatic pulmonary emboli, and further radiographic studies were diagnostic of renal vein thrombosis. Recommendations for invasive studies in order to diagnose this complication in patients with nephrotic syndrome are made.

Renal vein thrombosis was first described by Rayer on the basis of autopsy findings in seven patients.[1] In a thorough literature review in 1963, only 65 cases were discovered, in most of which the diagnosis had been made post-mortem.[2] Clinically apparent renal vein thrombosis seems to be somewhat more frequent than was previously thought, frequently in association with nephrotic syndrome.[3] Clinical, radiological, and pathological manifestations of renal vein thrombosis have previously been reviewed.[4]

We have recently had the opportunity to study a man with nephrotic syndrome who developed evidence of thromboembolic disease and characteristic radiological signs of renal vein thrombosis during the period of observation. Because of the difficulties in diagnosis and the contribution of invasive studies, we present this case.

Case Report

This 39-year-old white man was admitted because of edema of the lower extremities. Two weeks prior to admission, he developed the gradual onset of swelling of the ankles and legs with anorexia, fatigue, shortness of breath, puffy eyes, and an 8 pound weight gain. He had no previous history of renal disease, diabetes, heart disease, rheumatic fever, rash, arthralgias, bites, and was taking no medication.

Physical examination revealed a cachectic pale male with normal vital signs including blood pressure, bilateral basilar rales, signs of consolidation at the right base, and 4+ pitting edema of the lower extremities to the thigh.

Laboratory studies revealed 4+ proteinuria with 6 grams protein excretion in 24 hours. Cholesterol was 342, total protein 5.0, albumen 1.8, hemoglobin 13. Urine sediment showed 6-8 WBC's and 10 RBC's with occasional coarsely granular casts. Serum complement (C'3), protein electrophoresis, and a variety of other serologic tests were normal. An intravenous pyelogram is shown in Figure 1. Representative samples from a percutaneous kidney biopsy are shown in Figure 4, 5.

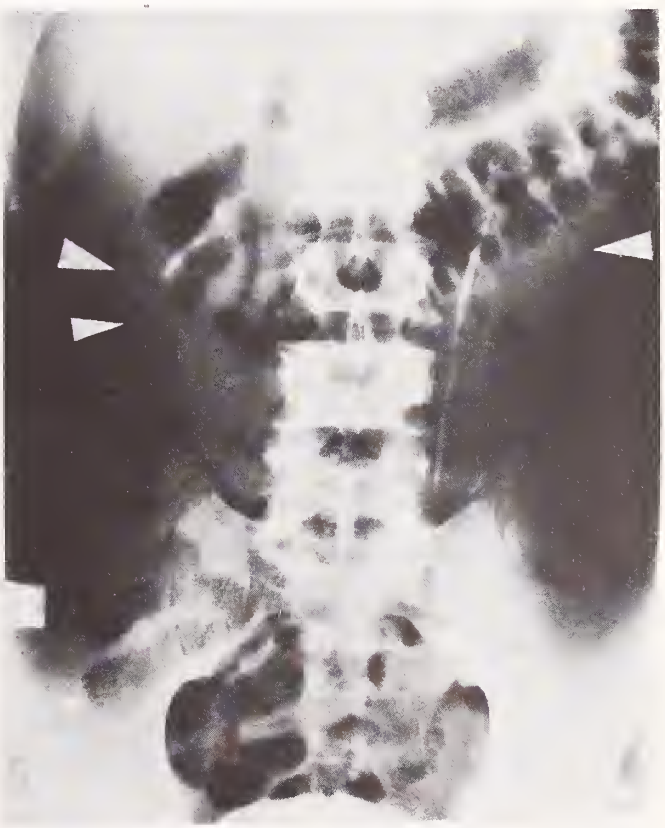

Figure 1
Intravenous pyelogram. Note stretching and narrowing of infundibula.

One week later and prior to the final renal biopsy report, he was readmitted with severe dyspnea, hemoptysis, tachycardia, and the findings of a new infiltrate on the chest Xray with prominence of a pulmonary artery segment. The lung scan revealed decreased perfusion in both lower lobes. The patient was treated for pulmonary emboli with heparin and oxygen. After improvement of

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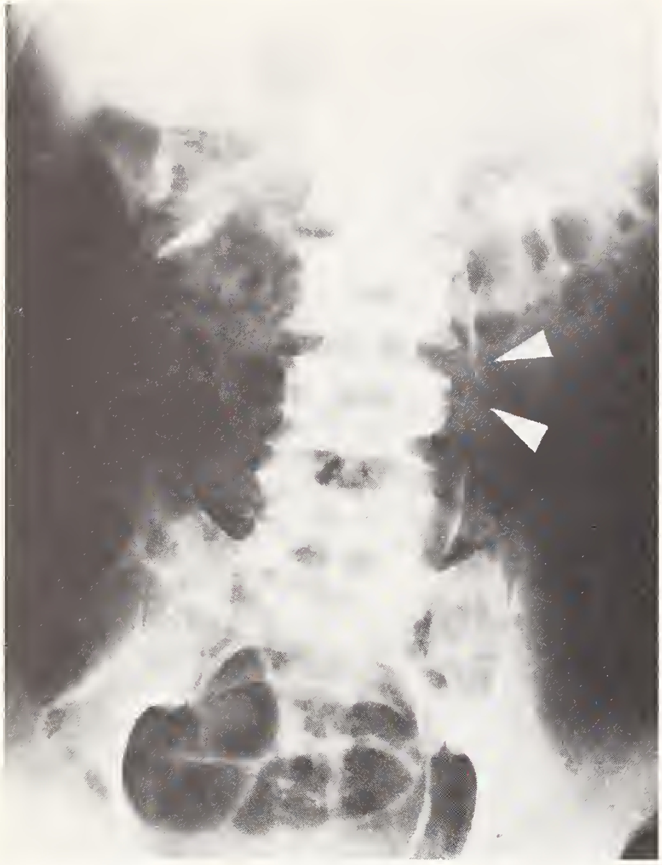

Figure 2
Abdominal film following inferior venacavagram. Ureteral notching has developed.

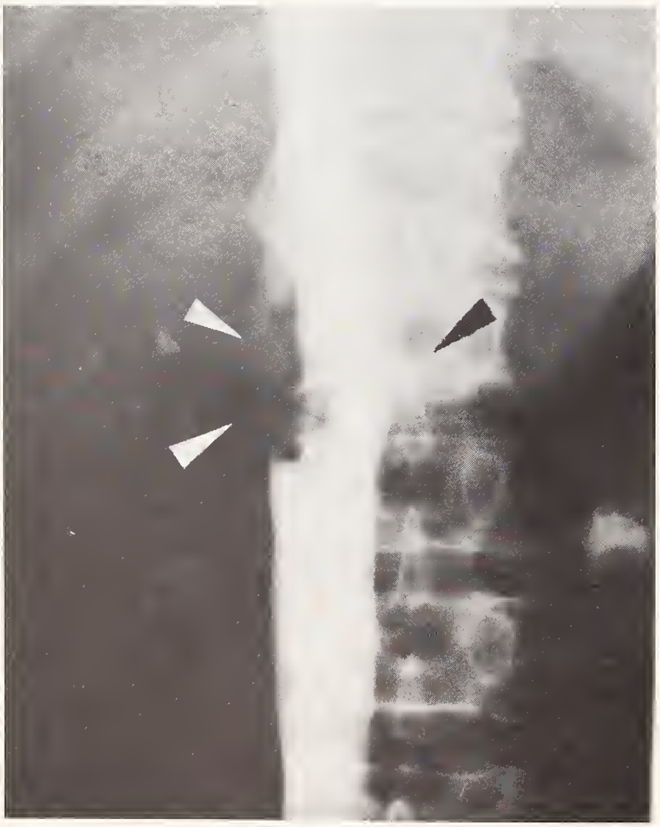

Figure 3
Inferior venacavagram. There is a large filling defect on the right due to thrombosis, and evidence of retrograde filling of the left renal vein.

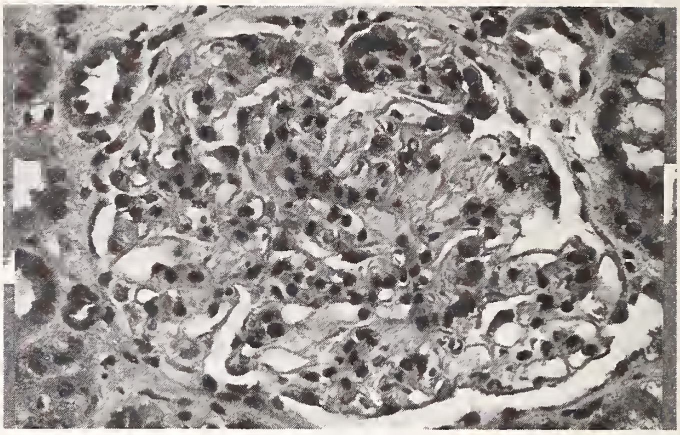

Figure 4
Light microscopic appearance of a typical glomerulus. The hypercellularity is mainly due to an increased number of polymorphonuclear leukocytes within the glomerular capillaries. Hemotoxylin an eosin X 320.

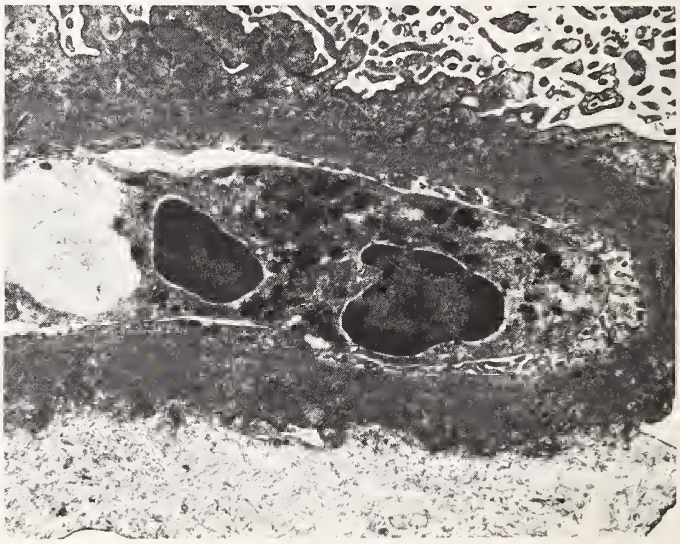

Figure 5
Electron microscopic detail. Note the electron dense deposits on the basement membrane and the marginated polymorphonuclear leukocyte. X 11,000.

symptoms, an inferior venocavagram was done and bilateral renal vein thrombosis was found (Figure 3). He was discharged on low sodium, high protein diet, warfarin, and furosemide. Except for persistent edema and proteinuria (4-5 grams in 24 hours) he has done well.

Renal Biopsy Findings

On light microscopy the glomeruli appeared enlarged. The capillary walls were thickened and the mesangial areas dilated due to increased amounts of mesangial matrix. Within the glomerular capillaries there was an increased number of polymorphonuclear leukocytes.

Ultrastructurally on the glomerular basement membranes there were numerous uniformly distributed electron dense deposits. The deposits were either on the epithelial side or incorporated into the basement membrane itself. Within the capillaries there were numerous marginated polymorphonuclear leukocytes. The findings were equivalent to typical membranous nephropathy, stage II[5]. Tubular changes were interpreted as secondary to proteinuria. There was moderate interstitial edema.

Discussion

In a recent prospective study, 12 of 36 consecutive patients with nephrotic syndrome were found to have renal vein thrombosis by inferior venocavagram.[3] Most had membranous nephropathy, as did our patient. Only a minority had symptoms, or pyelographic or pathologic findings suggestive of renal vein thrombosis. In our patients, there was no history of flank pain, gross hematuria, malignancy, or rapid deterioration of renal function to suggest this diagnosis. Likewise the intravenous pyelogram was nondiagnostic. Nonetheless the renal biopsy findings were quite suggestive of renal vein thrombosis in association with membranous nephropathy.

Intravenous pyelography is probably the easiest study to perform in consideration of renal vein thrombosis. In acute, complete forms, nonvisualization of the affected side or sides usually occurs, and tomography may demonstrate only an enlarged renal outlone.[6] In acute incomplete, or chronic gradual occlusion, the kidney will appear large, with masses of edematous renal parenchyma distorting the calyces and causing stretching and narrowing of the infundibula (Figure 1, arrowheads). This appearance is frequently confused with polycystic kidney disease. Compression of the renal pelvis with filling defects (blood clots) may also be seen.[7] Ureteral notching due to dilated collateral veins may be present (Figure 2, arrowheads). In our case, note that the ureteral notching had not yet developed when the intravenous pyelogram was performed (Figure 1), but was present on the abdominal film following the inferior venacavagram performed subsequently (Figure 2).

Retrograde pyelography may be performed in the nonvisualizing IVP and will usually give the same information. In some cases, the renal edema may be so great as to cause stenosis of the ureteropelvic junction.[7]

Inferior venacavography, although more hazardous from a standpoint of dislodging clot, is more definitive than arteriography. This should be performed by placing a catheter tip via the femoral vein in the most inferior portion of the inferior vena cava. Findings include demonstration of filling defects opposite the renal vein and lack of "streaming" of unopacified blood from the renal vein[7] (Figure 3). Note the "dimple" on the left side (black arrowhead) due to retrograde filling of the renal vein orifice and the filling defects in the inferior vena cava (double arrowheads). Selective renal phlebography may be performed if no filling defects are demonstrated on the inferior venacavagram and may reveal slow washout (greater than 3 seconds).[7]

Renal arteriography may be the procedure of choice from a safety standpoint. This may show decreased caliber of the intrarenal arteries, slow rate of blood flow, deviation and stretching of the interlobal arteries and loss of distinction between cortical and medullary blush[8]. In addition collateral veins may be faintly seen and the renal vein will not opacify.[7]

Chest Xray and pulmonary scans should also be performed as they may offer evidence of thromboembolism which may be present in up to 75% of cases[6].

Renal pathology Morphologically there are no consistent findings in the renal biopsy tissue that could be taken as an absolute sign of renal vein thrombosis. Since margination of leukocytes in the glomerular capillaries and interstitial edema are found almost regularly in primary renal vein thrombosis[9], the presence of these changes in the kidney biopsy should necessitate an active search for this well known complication of membranous nephropathy. The membranous form of SLE can also be complicated by renal vein thrombosis.

We believe that our patient shows many of the characteristic pathological and radiographic manifestations of renal vein thrombosis. Yet the diagnosis was not at all obvious from clinical factors alone on admission.

There has been a continuing controversy as to whether renal vein thrombosis is the cause of nephrotic syndrome or the consequence of it. The occurrence of a hypercoaguable state in nephrotic syndrome has been established. In some individuals, a prolonged time interval may be present between the development of nephrotic syndrome and the diagnosis of renal vein thrombosis. The above would appear to suggest that renal vein thrombosis may be the consequence of nephrotic syndrome, particularly of membranous nephropathy. The development, during a period of observation, of clinical (thromboembolism) and radiographic (ureteral notching) evidence of renal vein thrombosis in our patient would perhaps tend to support this notion.

The prognosis of untreated renal vein thrombosis is poor, with mortality rates as high as 60%, more due to thromboembolic phenomena than to renal failure. For this reason, early diagnosis is imperative. All patients with nephrotic syndrome should have an IVP, and many perhaps should have a percutaneous renal biopsy. In patients with the nephrotic syndrome, strong consideration should be given to inferior venacavography when any of the following factors are present: history of flank trauma; rapid deterioration of renal function; malignancy; sickle cell anemia; suggestive features on intravenous pyelogram; leukocyte margination on biopsy specimen; venous thromboembolism. In the opinion of the authors, a blanket recommendation that all patients with nephrotic syndrome due to membranous nephropathy have inferior venacavography is unjustified, until the findings of Llach et al[3] can be corroborated.

Therapy of renal vein thrombosis is anticoagulation. The duration of therapy is difficult to determine, and it has been suggested that a case can be made for indefinite anticoagulation.[4] Thrombectomy has been advocated in addition as primary therapy. There is no convincing evidence that thrombectomy plus anticoagulation improves survival as compared with anticoagulant therapy alone. The widely held view that corticosteroid therapy in membranous nephropathy is of no value, has recently been challenged in several studies.[10, 11] Corticosteroid therapy for renal vein thrombosis has been attempted without convincing success[4]. Anticoagulation remains the mainstay of therapy, reducing the incidence of thromboembolic events, and very possibly preventing the portion of any progressive renal insufficiency that might otherwise have resulted from renal vein thrombosis per se.

REFERENCES

1. Rayer PFO: Traite de maladies des reins. Paris: Bailliere, 1837
2. Kowal J, Figur A, and Hitzig WM: Renal vein thrombosis and the nephrotic syndrome with complete remission. J Mt Sinai Hosp 30: 47, 1963.
3. Llach F, Arieff AI, and Massry SG: Renal vein thrombosis and nephrotic syndrome—a prospective study in 36 adult patients. Ann Int Med 83: 8-14, 1975
4. Rosenmann E, Pollak VE, and Pirani CL: Renal vein thrombosis in the adult—a clinical and pathologic study based on renal biopsies. Medicine 47: 269-335, 1968
5. Ehrenreich T, Churg J: Pathology of membranous nephropathy. Pathol Annu 3: 145-186, 1968.
6. Scanlon GT: Radiographic changes in renal vein thrombosis. Radiol 80: 208-211, 1963.
7. Chait A, Stoane L, Moskowitz H, et al: Renal vein thrombosis. Radiol 90: 886-896, 1968.
8. Mulhern CB, Arger PH, Miller WT et al: The specificity of renal vein thrombosis. Am J Radiol 125: 291-299, 1975.
9. McCarthy LJ, Titus JL, Daugherty GW: Bilateral renal vein thrombosis and the nephrotic syndrome in adults. Ann Int Med 58: 837-841, 1963.
10. Coggins CH: An interhospital study of the adult idiopathic nephrotic syndrome and its response to treatment. Kidney Int 8: 408, 1975.
11. Ehrenreich T, Porush JG, Churg J, et al: Treatment of idiopathic membranous nephropathy. N Engl J Med 295: 741-746, 1976.

Abortion Applicants

A comparison of women who apply for abortion and drop out with those who undergo the procedure may be useful in understanding this complicated decision-making process. Swigar and associates studied a group of women who had abortions and compared them with another group who dropped out after contacting the counseling facility.

There were no group differences in age, race, marital status, religion, socioeconomic status, welfare or self-payment, occupation, partner's age and occupation or the referral source. However, both the women having the abortion and their sexual partners had significantly more education. Significantly more women who decided to have their child came to the abortion clinic after the 12th gestational week (when a more complicated abortion becomes necessary) than those women who had the abortion.

There were no significant differences between the groups as far as current marital status or in plans for marriage, divorce or separation. However, sexual partners of those who subsequently delivered were significantly more negative about abortion than partners of aborted women. Women who delivered, whether presenting earlier or later in gestation, reported significantly greater fear of the abortion, had fewer negative feelings about pregnancy, expressed greater indecision and more negative feelings about abortion, and more frequently described the abortion as murder or a sinful act.

Further study is needed to clarify why women who went on to deliver came to an abortion counseling clinic at all. Suggested explanations include avoiding recognition that a threat exists, an abrupt overenthusiastic shift to adopt a new course, a defensive avoidance of discrepant information once a preliminary course is taken, or a panic-like reaction when it seems as if no adequate course of action can be taken. (*American Journal of Public Health,* February 1977, p. 142.)

Enteritis and the Continent Ileostomy

Stewart A. King, M.D.

Since the description by Professor Nils Kock of his first five cases in 1969[4] and his subsequent report of twenty-five cases[5] in whom an internal ileal reservoir was created, considerable interest in the procedure has been evident in the United States. A total of at least one hundred fifty and probably over two hundred such reservoirs have been constructed by various groups in this country since August of 1971.

Commenting upon Professor Kock's initial case presentation,[4] Dr. Rupert Turnbull of the Cleveland Clinic enunciated his interest in the concept, but warned of the difficulty in clearly defining the pathologic differences between Granulomatous and Ulcerative colitis. Because of the danger of development of Crohn's ileitis most surgeons performing the procedure attempt to exclude patients with Granulomatous disease of the colon.

Since August of 1971 eleven patients have had internal ileal reservoirs constructed at the Stamford Hospital. Ten of these have been reported previously.[2,3] A level of continence, variable, but satisfying to the patient has been attained by ten of the patients. None of these has worn an appliance at any time since their surgery. The second patient in this series died at home apparently of a fulminant enteritis superimposed on short bowel syndrome resulting from multiple operative procedures for intestinal obstruction with ultimate sacrifice of the reservoir. Consultation with, and reoperation by Dr. Turnbull raised a question of Crohn's ileitis in this case but this was not confirmed microscopically.

Recently, however, six of the remaining ten patients have demonstrated problems with their intestine consistent with a diagnosis of enteritis.

Case Reports

R.F. #9 (previously reported) developed episodes of incontinence four months after surgery. Colonoscopic biopsy of the pouch and proximal ileum and x-rays established a diagnosis of Crohn's ileitis. He has responded well to Azulfidine and for the most part is continent between catheterizations.

P.P. #1 had done well since his surgery in 1971 but began to have increasing cramping pain earlier this year associated with a need for more frequent catheterization and troublesome leaks. Retrograde pouch biopsy and x-rays following an acute febrile episode confirmed the diagnosis of Crohn's ileitis. He is now asymptomatic on Prednisone and Azulfidine.

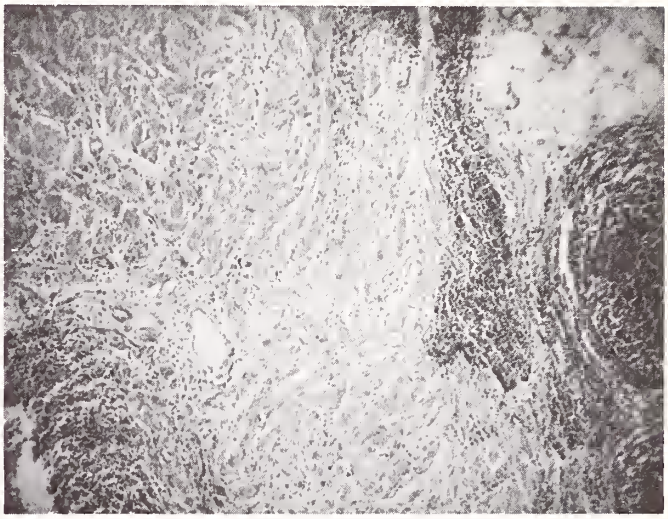

Figure 1
Ileal wall specimen at time of conversion demonstrating thickening of the submucosa and muscularis mucosa.

B.S. #11 had a continent ileostomy constructed on 5/22/75 and within two months required admission to the Presbyterian Hospital in New York where she was found to have Crohn's ileitis. She too is asymptomatic on Prednisone and Azulfidine.

Comment

All patients in this series were carefully screened. All had pathologic diagnoses of Ulcerative colitis originally, and review of the microscopic slides by competent pathologists appeared to confirm this diagnosis. Conversion to a continent ileostomy was not attempted on any patient in whom clinical history, x-ray or microscopic findings suggested the possibility of Granulomatous disease of the colon. In this series, the number of patients seeking a continent ileostomy who were dissuaded, because they had, or there was a strong possibility that their disease had been, granulomatous colitis exceeds those who have been converted.

Of further concern is the return of three additional patients since August with a consistent pattern of complaints. Each has had moderate to severe cramping pain, partial loss of continence, increasing difficulty in catheterizing, and the need for more frequent catheterization.

Case Reports

M.D. #4, well since her conversion in February 1974 had lost twenty-two pounds in six weeks when she was seen in August with the above problems. She was admitted, begun on Azulfidine and had essentially negative antegrade and retrograde small bowel x-rays. Pouch biopsy revealed colonification of the ileal mucosa and

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STEWART A KING, M.D., Attending Surgeon, Stamford Hospital, Stamford, CT.

minimal inflammatory infiltrate. Within twenty-four hours all symptoms had subsided, and during six days of hospitalization she gained six pounds. She has regained all her lost weight, is asymptomatic, fully continent and catheterizing three times daily. She takes Azulfidine only for distress.

C.M. #8 presented with the same symptoms on 9/19/75. Following initial loss of continence four months after construction of his reservoir; there had been slow but steady improvement in the level of continence. Now he was again catheterizing 6-7 times daily with frequent leaks. Azulfidine was begun empiricially and within eight hours symptoms had regressed. A week later he was almost fully continent, better than he had been for ten months.

M.M. #6 returned in September with identical complaints and a similar response to Azulfidine.

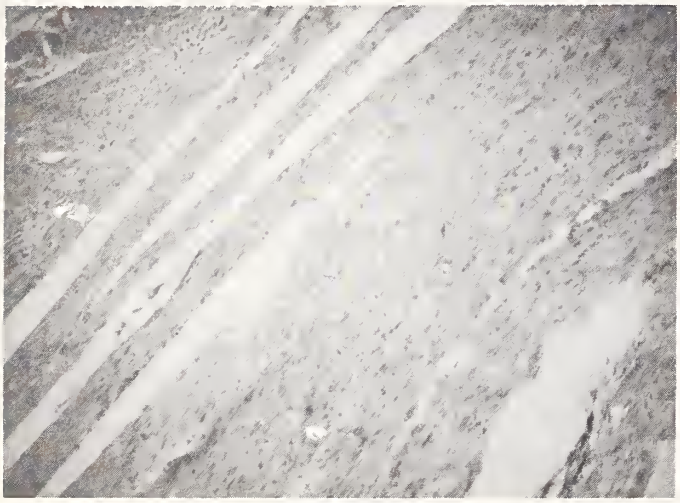

Figure 2
Ileal wall—normal muscularis propria—a consistent finding in all eleven cases.

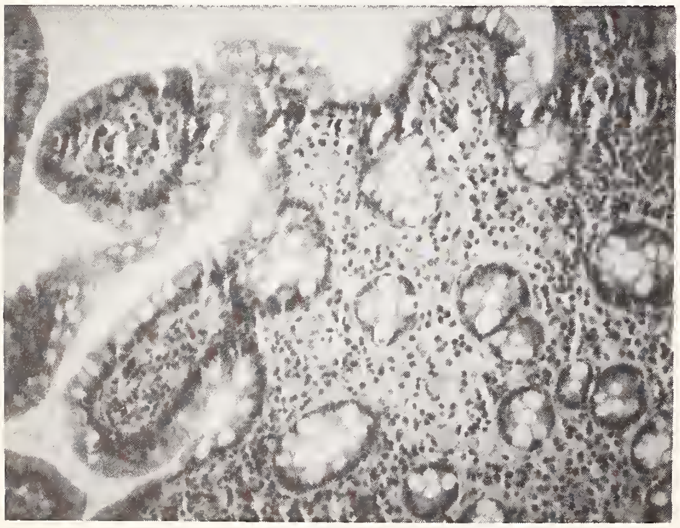

Figure 3
Ileal mucosal biopsy with non-specific inflammatory change following development of cramping pain.

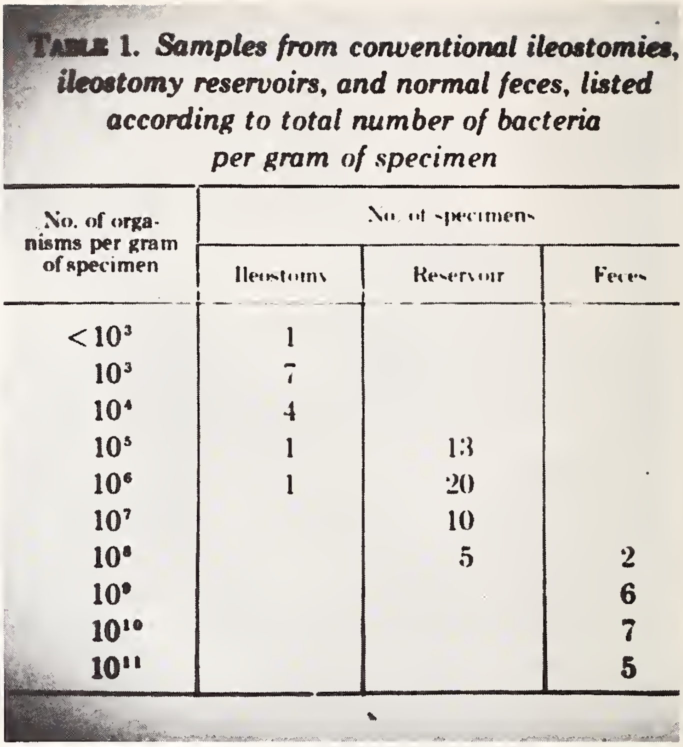

TABLE 1. *Samples from conventional ileostomies, ileostomy reservoirs, and normal feces, listed according to total number of bacteria per gram of specimen*

No. of organisms per gram of specimen	No. of specimens		
	Ileostomy	Reservoir	Feces
$<10^3$	1		
10^3	7		
10^4	4		
10^5	1	13	
10^6	1	20	
10^7		10	
10^8		5	2
10^9			6
10^{10}			7
10^{11}			5

Figure 4
From Brandberg, Kock and Phillipson Gastroenterology, 1972

Discussion

Despite a cautious approach to accepting patients for elective conversion to a continent ileostomy, three of the eleven patients now have Crohn's Ileitis and presumably had Granulomatous Colitis as their primary disease.

Others—Beahrs at the Mayo Clinic, Thow in Urbana have described the appearance of what they term "Mucosal Enteritis" in patients with the continent ileostomy. Professor Kock also has patients with small bowel disease doing well on Azulfidine. This, mucosal enteritis, appears to be the problem in the last three patients, and their response to Azulfidine has been dramatic. The large percentage of patients, however, six of eleven in this series, who have manifested a major small intestinal problem is highly disturbing. If long term control is truly possible with Azulfidine, my alarm may diminish.

Development of late incontinence and difficulty inserting the catheter have been described, and related to intussusception of the nipple. I was unable to define such an intussusception in these cases studied, and the alleviation of the symptoms by Azulfidine would seem to implicate a functional rather than a mechanical problem, at least in these patients.

Some interesting speculations arise from the occurrence of this syndrome and the response to therapy. Professor Kock has shown that the reservoir flora[1] rapidly assumes characteristics closer to colonic than to ileal flora. Despite almost complete emptying (with catheterization), corroborated by x-ray studies—there is an element of stasis; and the mucosa of the reservoir undergoes flattening and colonification.

It seems logical to ask whether the change to a colonic flora with increasing numbers of anaerobes bears a direct causal relationship to the development of "Mucosal enteritis" and indeed Crohn's Ileitis. The mode of action of Azulfidine is not clear. It is a composite of salicylic acid and sulfapyridine. While the assumption is made that the antibacterial action of the sulfapyridine is the prime beneficial factor, there remains the anti-inflammatory action of salicylic acid and its contribution. If the prime effect is a decrease in the quantity of bacteria present, which most assume, then the dramatic effect of Azulfidine demonstrated by these patients would seem to lend more credibility to the concept that inflammatory bowel disease in several forms may be a continuum linked by a common etiologic factor related to the bacterial flora or its byproduct.

Are ulcerative colitis, granulomatous colitis, mucosal enteritis, backwash ileitis and Crohn's Ileitis really a single disease entity exhibiting a spectrum of pathologic changes?

Summary

Internal ileal reservoirs have been constructed in eleven patients. A level of continence satisfying to the patient is being maintained in ten of the eleven. During the past few months, in addition to one patient previously diagnosed as Regional enteritis, five other patients have reported problems with their reservoirs consistent with an enteritis. Dramatic alleviation of all symptoms has occurred with the institution of Azulfidine therapy in four of the six. Two others are receiving maintenance prednisone for Crohn's Ileitis. The high incidence of enteritis and the rapid response to Azulfidine seem to implicate a change to a colonic bacterial flora consequent on stasis in the reservoir.

REFERENCES

1. Brandberg A, Kock, NG, Philipson, B: Bacterial Flora in Intraabdominal Ileostomy Reservoir. Gastroenterology 63: 413-416
2. King, SA: Quality of Life-The Continent Ileostomy. Ann of Surg 182: 29-32, 1975
3. King, SA: Quality of Life-The Continent Ileostomy. Conn Med 39: 523-525, 1975
4. Kock, NG: Intraabdominal "Reservoir" in Patients with Permanent Ileostomy. Arch Surg 99: 223-230, 1969
5. Kock, NG: Ileostomy without External Appliances. Ann Surg 173: 545-550, 1971

Pneumococcal Osteomyelitis and Arthritis in an Infant

Report of a Case and a Brief Review of the Literature

Usha Lakhani, M.D.

ABSTRACT—A case of pneumococcal osteomyelitis and arthritis in a 10½-month old infant has been described. There was a good response to treatment, and no complications were seen on 10-month followup. After a review of the pediatric literature from 1924 to 1976, the incidence of pneumococcal osteomyelitis with or without arthritis is estimated to vary between 1 to 4 percent of cases of osteomyelitis and/or septic arthritis in children in most series and the incidence of pneumococcal arthritis uncomplicated by osteomyelitis appears to be as high as 16 percent of cases of septic arthritis in children.

Although not common, this infection occurs sufficiently often to justify constant vigilance on the part of every physician, since timely specific intervention significantly reduces mortality and morbidity of the disease.

Introduction

Since the introduction of antibacterial agents, pneumococcal osteomyelitis and arthritis has been a rare disease. Although there have been several scattered adult case reports[1, 2, 3] of this entity, many of which were stimulated by a single observation, there are no recent reports in the pediatric literature.

This is a report of an infant with proven pneumococcal osteomyelitis and arthritis of the knee without evidence of pneumonia along with a review of the pediatric literature.

Case Report

A.K., a 10½-month old girl, was admitted to New Britain General Hospital on December 12, 1975 with complaints of low-grade fever, irritability, and painful swelling of the right knee of five days duration. There was a history of mild upper respiratory tract infection one month ago and a history of a fall from height of one to one-and-a-half feet eight days prior to admission without obvious evidence of trauma.

The patient was a product of a normal full-term pregnancy, labor, and delivery. The growth and development have been within normal limits. Neither she nor family members had experienced any recent significant illness.

Physical examination on admission revealed a febrile child with excessive crying and irritability. Height and weight were at the 50th percentile. The rectal temperature was 102°F. Heart rate was 140/minute and respiratory rate was 26/minute. The right knee was markedly swollen, semiflexed, erythematous, warm, and tender with marked limitation of movements. Other joints were within

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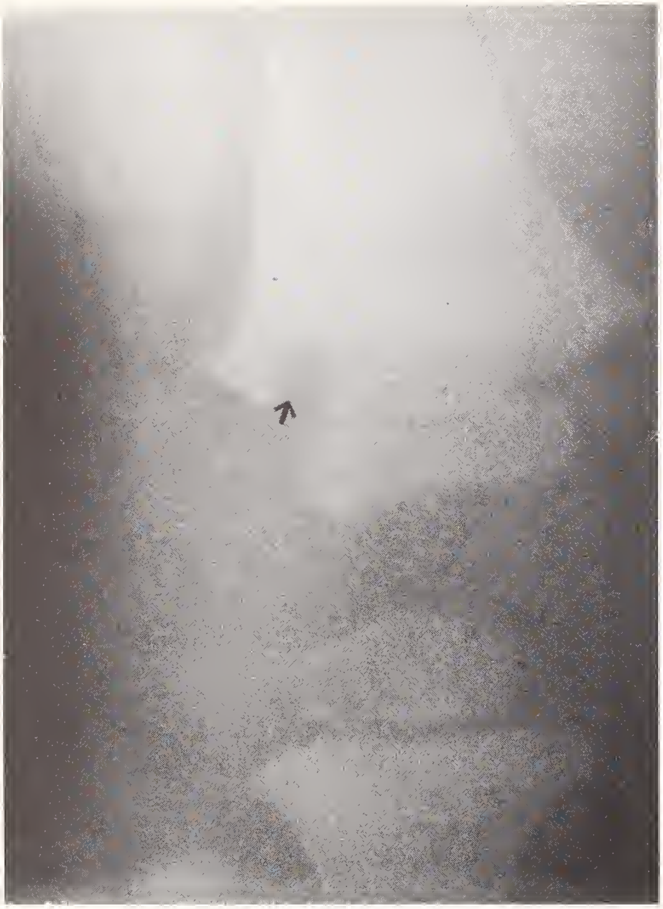

Figure 1(a)
X-ray of right knee on admission—postero-anterior view showing osteolytic lesion of the lateral side of right distal femoral epiphysis.

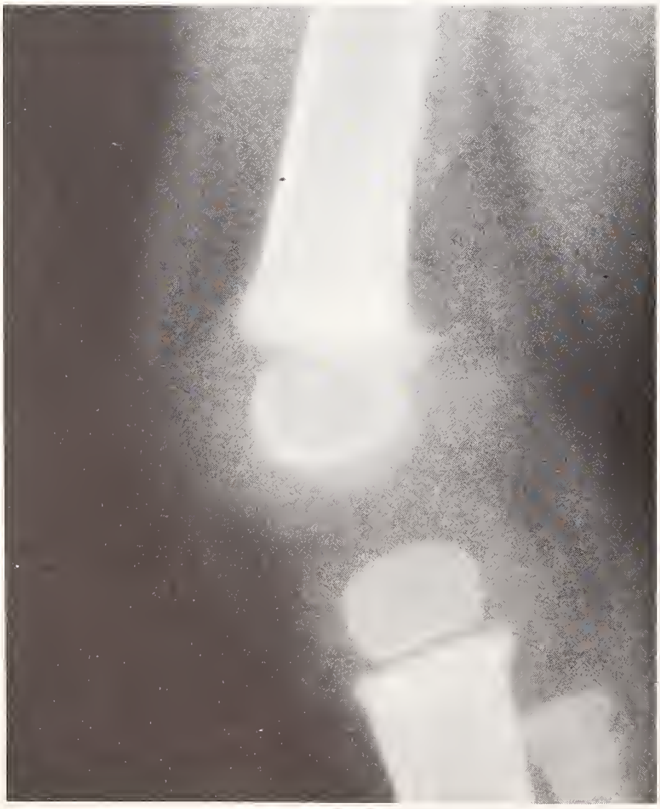

Figure 1 (b)
X-ray of right knee on admission—lateral view showing the soft tissue swelling and obliteration of tissue planes suggestive of joint effusion.

normal limits. There were no other positive physical findings. No focus of infection apart from the knee was found.

Laboratory Data included the following: Hemoglobin=10.1 grams%, Hematocrit=31% with hypochromia+ and microcytosis+ on peripheral smear. Sickle cell preparation was negative. White blood cell count = 38,800/m^3 with polymorphonuclear leukocytes =68%, Bands 6%, Lymphocytes=20% and Monocytes=6%. Erythrocyte sedimentation rate was 102mm/hr. An X-ray of the right knee showed soft tissue swelling, a joint effusion, and an osteolytic lesion of the lateral side of distal femoral epiphysis. Figures 1(a) and 1(b). An X-ray of chest showed no evidence of pneumonia. Aspiration of the knee joint revealed 12ccs of thick green pus, which on Gram's staining showed Gram positive cocci in pairs and 80% polymorphonuclear leucocytes. There was a protein content of 6.5 grams%, and a glucose content of 9 mg% (simultaneous blood sugar was 97 mg%). A Streptococcus Pneumoniae Type VI was cultured from both the joint fluid and blood which was sensitive to penicillin. Serum immunoglobulins and compliment were within normal limits.

Treatment

The patient was treated initially with intravenous oxacillin, 100 mgm/kg/d and ampicillin 400 mgm/kg/d. After the culture report was obtained, the treatment was changed to IV aqueous penicillin 100,000 units/ kg/day at four hour intervals. The patient became afebrile within 24 hours. Re-aspiration of the joint after 56 hours revealed 2ccs of blood-tinged pus with a negative culture. At that time 50,000 units of aqueous penicillin was injected intra-articularly, and the joint was immobilized by splinting. She received intravenous antibiotic therapy for 18 days and oral penicillin for four weeks and oral iron therapy.

Serial X-rays of the right knee showed progressive healing of osteolytic lesion with complete resolution after four months. Figures 2(a) and (b). At that time and on ten-month followup, the right knee was freely mobile without any deformity or contracture.

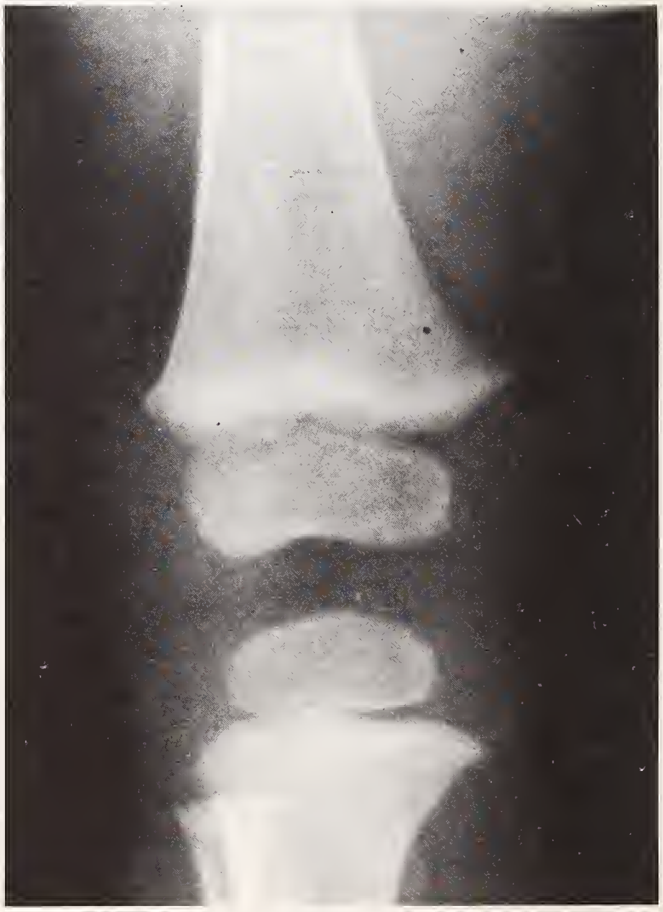

Figure 2 (a)
X-ray of right knee, postero-anterior view, four months after starting treatment, showing normal bone and joint.

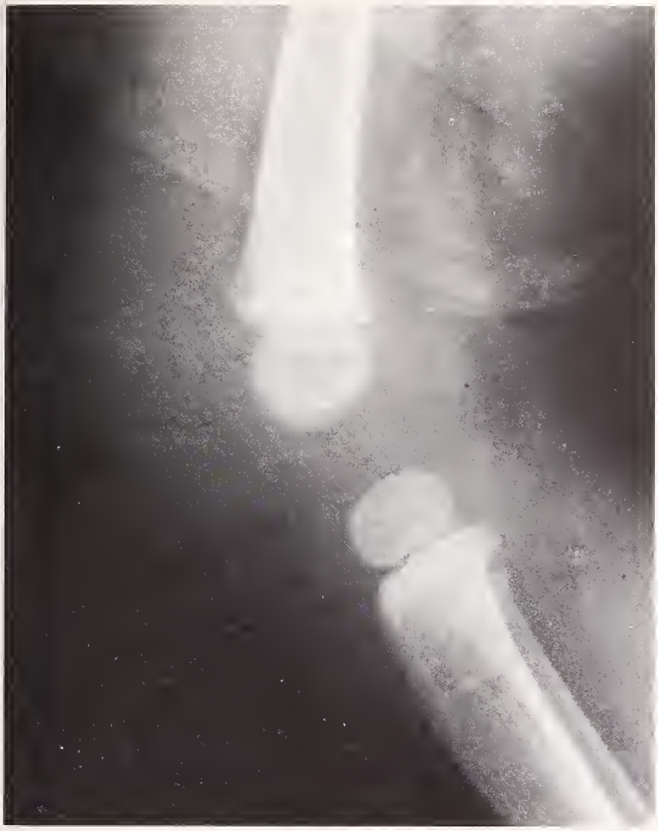

Figure 2 (b)
X-ray of right knee—lateral view-four months after starting treatment showing normal bone and joint and well delineated tissue planes.

Discussion

Incidence

Simultaneous pneumococcal infection of a bone and a joint is a rare occurrence. A summary of reports of pneumococcal osteomyelitis and/or arthritis in the pediatric literature is shown in Table I. The incidence of the pneumococcal osteomyelitis with or without arthritis is estimated to vary between 1 to 4 percent of cases of osteomyelitis and/or septic arthritis in children in most series. Samilson et al[12] described five cases of pneumococcal arthritis in a series of 35 infants with septic arthritis from 1934-1956—an incidence of 14 percent. Recently, Goldenberg and Cohen[6] described two cases of pneumococcal arthritis among 12 children with septic arthritis from 1965-1972—an incidence of 16 percent. Thus, pneumococcal arthritis uncomplicated by osteomyelitis appears to occur much more frequently than pneumococcal osteomyelitis and/or arthritis combined. Interestingly, in a large series of osteomyelitis and septic arthritis in children encompassing the years 1943-1973 which was reported by Morrey et al[4], there were none with pneumococcal infection.

Torres et al[1] reviewed adult cases with this infection and found 285 such cases from 1888 to 1970; 70 to 75 percent of them occurred in association with pneumonia. On the other hand, the frequency of pneumococcal arthritis as a complication of pneumococcal pneumonia in adults in different series varies between 0.1 to 0.6 percent. Bunim[3] reported an incidence of 1 in 327 of adult cases of pneumococcal pneumonia.

Pathophysiology

In infants the clinical picture is characterized by a transient bacteremia followed by a local infection in a bone. In contrast, in older children it frequently begins with a fulminating septicemia associated with abscess in the bones and possibly other organs.[16] This striking difference for the clinical picture in infants may be accounted for by the fact that:

Table 1
REVIEW OF PEDIATRIC LITERATURE FOR PNEUMOCOCCAL INFECTIONS OF BONE AND JOINT OUT OF TOTAL CASES OF OSTEOMYELITIS AND SEPTIC ARTHRITIS IN CHILDREN
(1924-1973)

		Total no. of cases		*Pneumococcal Infections*			
Authors	*Years*	*Osteomyelitis*	*Septic Arthritis*	*Osteomyelitis*	*Arthritis*	*Percentage of Pneumococcal Infections %*	*Age Group (in years)*
1. Morrey et al[4]	1943-73	135	103**	0	0	0	-
2. Dich et al[5]	1959-73	163*	-	2	-	1.2	<2
3. Goldenberg & Cohen[6]	1965-72	-	12	-	2	16	-
4. Nelson et al[7,8]	1955-70	-	221	-	8	3.6	-
5. Gillespie et al[9]	1953-65	-	102**	-	3	2.9	<3
6. Borella et al[10]	1945-60	-	52**	-	2	4	-
7. Winters et al[11]	1956-59	61	-	0	-	-	-
8. Samilson et al[12]	1934-56	-	35	-	5	14	<1
9. Green et al[13]	1924-54	99	-	1	-	1	<1
10. Blanche[14]	1934-50	35	-	0	-	0	<1
11. Self[15]	1930-46	138	-	3	-	2.1	-
12. Green & Shannon[16]	1930-32	95	-	3	-	3.1	<2

*Out of 163 cases, 29 also had septic arthritis
**Some had osteomyelitis.

1) Bone in infancy is much more spongy and vascular with a thinner cortex.

2) Some capillaries from the metaphysis perforate the epiphyseal growth plate and; thus, infection can spread more rapidly to the epiphysis.

3) The periosteum is more cellular and is more loosely attached to the bone.

These factors promote early decompression of the osteomyelitis lesion so that there may be very little systemic reaction. On the other hand, the destruction of joint elements and epiphyseal cartilage may occur quickly.

Predisposing Factors

The relationship of antecedent extraosseous bacterial infections to osteomyelitis and arthritis is striking. Thirty percent of cases described by Green & Shannon[16] and 28 percent of patients described by Dich et al[5] had antecedent respiratory tract infection and the majority had colds, sorethroat or bronchitis. Unlike adults, pneumonia is not a common finding in children with pneumococcal osteomyelitis or arthritis. “Unexpected” or “occult” pneumococcal bacteremia associated with symptoms of upper respiratory tract infection, fever and leucocytosis has been described.[17]

The relationship of injury to osteomyelitis or arthritis is frequently debated. Trauma might have been a predisposing factor in the case described.

The increasing incidence of septic arthritis during the latter part of the first year could be influenced by motor development with associated trauma which increases rapidly during the period when infant progresses from recumbent existence to walking.

Clinical Features

The symptoms and signs produced are those of a suppurative infection. These are swelling, increased warmth, and tenderness of a joint and the limitation of the joint movements along with systemic symptoms of fever, irritability, cold, and cough. The fever may be low grade—about 100-101°F.

Pneumococcal arthritis has been described to be monoarticular in 75 percent of adult cases with a predilection for knee and shoulder joints.

Diagnosis

Specific bacteriologic identification of pneumococci from synovial fluid or bone puncture is the best evidence of the infection. Blood cultures are usually positive. A Type VI pneumococcus was isolated from the joint fluid as well as blood in the present case; thus proving hematogenous origin of the infection. Type VI pneumococcus is one of the types that has also been described in pneumococcal bacteremia in the absence of a clearly defined focus in childhood.[17]

The erythrocyte sedimentation rate is a valuable aid in following the progress of the disease.[4] In our case it was 102 mm/hr before treatment, and after two weeks of treatment it was 14 mm/hr.

On radiologic examination the presence of osteolytic lesion at the distal end of the femur near epiphyseal plate with signs of effusion in the knee joint suggested that the disease originated at least ten days prior to admission with subsequent decompression of the osteomyelitis lesion into the joint.

A radioiosotope bone scan (99m Tc-Sn-pyrophosphate) in the presence of a normal X-ray may confirm a suspected diagnosis of osteomyelitis as early as 48 hours after the onset of clinical symptoms. Early antibiotic therapy can be initiated to prevent crippling effects of the infection. In the present case, the X-ray diagnosis was clear.

Treatment

Systemic: Aqueous penicillin remains the drug of choice. Initial therapy at a dose of 100,000 units/kg-/day should be administered intravenously or intramuscularly and then orally when the patient is afebrile and local signs have diminished. The duration of therapy should be three to six weeks. For those allergic to penicillin, erythromycin remains the second drug of choice. Arguments exist regarding intra-articular instillation of penicillin.[3, 7, 18] It was considered in our case because of the severity of local bony lesion as shown by X-ray.

Local: Successful treatment requires removal of large accumulation of purulent fluid by needle aspiration.[6] The effusion may not only limit the effectiveness of antibiotic but may also destroy articular cartilage because of increased intra-articular pressure and leucocyte enzyme activity. Open surgical drainage is not necessary unless there is no clinical or laboratory evidence of improvement. Immobilization of the joint with the posterior splint or cast should be done until acute inflammation has subsided and weight bearing is allowed when there is evidence of good healing by X-ray.

Course, Complications, Sequelae, and Prognosis

The earlier the treatment is instituted, the better the prognosis.[6] It has not been shown that a specific pneumococcal type has a predilection for bones or joints. Blankenhorn et al[19] described two children (16 months and 2 years old) who had pneumococcal Type VI infections, as in our case, and both had good recovery.

Complications and sequelae of the disease due to pneumococcal infections are the same as in any bacterial osteomyelitis and arthritis including bony growth disturbances and deformities.[20] Periarticular calcification, a rare complication of pyogenic arthritis, has been recently reported by Shawker et al.[21] This occurred within 4-12 weeks after the onset of symptoms. Residual synovitis in the form of slight swelling, mild warmth, and tenderness of joint secondary to pneumococcal arthritis was described by Argen.[2]

Though it is not different in many aspects from other bacterial infections of bone and joint, pneumococcal arthritis and osteomyelitis carries an excellent prognosis with early diagnosis and treatment and very low mortality and morbidity.

Addendum

Since this paper was accepted for publication, a second case of pneumococcal osteomyelitis and arthritis of a shoulder joint without evidence of pneumonia in a 4½ month old female infant was diagnosed and is being treated at Mount Sinai Hospital, Hartford, Connecticut.

REFERENCES

1. Torres J. Rathbun HK, Greenbough WB III: Pneumococcal arthritis—Report of a case and review of the literature. Johns Hopkins Med J 132:234-241, 1973
2. Argen RJ: Suppurative pneumococcic arthritis. NY State J Med 2573-2579, 1964.
3. Bunim JJ: Pneumococcal arthritis treated with penicillin—Report of six cases. Med Clin North Am 30: 584-596, 1946
4. Morrey BF, Bianco AJ, Rhodes KH, Peterson HA: 1) Septic arthritis in children; 2) Hematogenous pyogenic osteomyelitis. Ortho Clin North AM 6:923-951, 1975
5. Dich VQ, Nelson JD, Haltalin KC: Osteomyelitis in infants and children. Am J Dis Child 129:1273, 1975
6. Goldenberg DL, Cohen AS: Acute Infectious Arthritis—a review of patients with nongonococcal infections. Am J Med 60: 369-377, 1976
7. Nelson JD: The bacterial etiology and antibiotic management of septic arthritis in infants and children. Pediatrics 50: 437-440, 1972
8. Nelson JD, Koontz NC: Septic arthritis in infants and children. Pediatrics 38: 966-971, 1966
9. Gillespie R: Septic arthritis of childhood. Clin Orthop 96:152-159, 1973
10. Borella L, Goodbar JE, Summit RL, Clark GM: Septic arthritis in childhood. J Pediatr 42: 561-569, 1953
11. Winters JI, Cahen I: Acute hematogenous osteomyelitis. J Bone Joint Surg 42A: 691-704, 1960.
12. Samilson RL, Bersani FA, Watkins MG: Acute suppurative arthritis in infants and children. Pediatrics 21: 798-804, 1958
13. Green M, Nyhan NL, Fousek MD: Acute hematogenous osteomyelitis. Pediatrics 17: 368-382, 1956
14. Blanche DW: Osteomyelitis in infants. J Bone Joint Surg 34A: 71-85, 1952
15. Self EB: Acute hematogenous osteomyelitis. Pediatrics 1: 617-626, 1948
16. Green WT, Shannon JG: Osteomyelitis of infants—a disease different from osteomyelitis of older children. Arth Surg 32:462-473, 1936
17. Burke JA, Klein JO, Gezon HM, Finland M: Pneumococcal bacteremia. Am J Dis Child 121: 353-359, 1971
18. Rhodes KH: Antibiotic management of acute osteomyelitis and septic arthritis in children. Orthop Clin North Am 6: 915-922, 1975
19. Blankenhorn MA, Grupen E: Treatment of pneumococcal pyoarthrosis. JAMA 122:1177-1179, 1948
20. Roberts PH: Disturbed epiphysial growth at the knee after osteomyelitis in infancy. J Bone Joint Surg 52B: 692-703, 1970
21. Shawker TH, Dennis JM: Periarticular calcifications in pyogenic arthritis. Am J Roentgenol 113: 650-654, 1971

Alcoholic Patients

The chronically and permanently disabled alcoholic individual presents a different problem from that of the patient in need of detoxification. I am referring to the unmotivated, desocialized, frequently brain-damaged person who has no desire to be rehabilitated but simply wants a place to live and an opportunity to drink.

Early in the decade these unfortunate people still had access to our state hospitals. Although not overly welcome, they were provided a place to live, a good diet, some pleasant distractions, and abstinence. As the decade progressed, we continued to move into the era of therapeutic zeal that started in the mid-1950s and held to the theory that everyone is treatable and state hospital custodial care is inherently destructive.

Unfortunately, chronically and permanently disabled alcoholic people exist in rather large numbers; they are those who have survived after all forms of treatment have failed. Like the chronically mentally ill, they have been "liberated" from the state hospitals and are now "free" to live out their lives in under-financed, undersupervised, and often grim nursing homes or board and care facilities. All too often they move in and out of the jail system or detoxification centers that keep them alive but add little to the quality of their lives.

As health care providers and the general public become more aware of this dilemma, there may be a trend in the next decade toward reinventing the state hospital or the county farm.

Robert A. Moore, M.D., "Ten Years of Inpatient Programs for Alcoholic Patients," *American Journal of Psychiatry,* May 1977.

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Lymphedema: An Overview

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Introduction

Recognition of the intricate roles played by the lymphatics in maintaining the integrity of the vascular system is an accomplishment of literally centuries of investigation. Despite the inaccessibility of these essentially microscopic vessels, which usually contain clear liquid, the first references to their existence were made by Aristotle and Hippocrates[1]. Further work awaited the description by Asellius in 1622[2] or 1627[1] of the mesenteric lymphatics of a dog, which in turn was the impetus for the studies of Pecquet (1651), Bartholinus (1652) and Rudbeck (1653). At a time when the capillaries remained to be discovered, and William Harvey (1628) was forced to postulate an anastomosis between the arteries and veins in order to complete the circulatory cycle,[3] the entrance of the thoracic duct into the veins was described and its function of lymph transport was suggested.[1, 4] Lymphatic topography was elucidated by Mascagni (1787) with mercury casts, which are still in existence today. Since these studies, the number of investigators has been legion and their work fruitful, especially with the advent of sophisticated technology—micromanipulation pressures, the electron microscope and lymphography.

Embryology

Although yet unresolved, two theories have emerged to explain the development of the lymphatics. Sabin[5] postulated that the lymph vessels arose as evaginations or buddings from veins (the centrifugal theory), while Huntington[6, 7]held the view that the anlage appeared as tissue clefts in the perivenous mesenchyme. Both theories have their proponents.[8, 9] Although in later development the major growth is accomplished by budding from already existing lymphatics. Crockett[10] has attempted to correlate these theories with development of abnormalities and primary lymphedema, i.e., either failure of growth and union of the system or dissolution during development.

Anatomy

Details of the lymphatic drainage of the limbs are complex, and have been summarized elsewhere.[11] Histologically, the epidermis is devoid of lymphatics and a valveless superficial dermal plexus[10, 12] drains into a valved dermal and subdermal system. The next step is drainage through valved collecting vessels into subcutaneous lymph trunks. The 'trunks' are separated from the deep lymphatic systems in the intermuscular fascial planes by the deep fascia. All trunks ascend contiguous to veins.

Of interest are the normally present communications between the superficial and deep systems in the popliteal and supratrochlear areas.[12] [13] They have also been frequently described following trauma,[10, 13] post-mastectomy edema,[10] radical lymphadenectomy[11] and primary lymphedema.[14]

Microscopically, except for the smallest lymphatics, the vessel walls are composed of intima, media and adventitia.[2, 9] The older view that lymphatic 'capillaries' end blindly in the tissues[9] is not supported by recent work[15] in which the majority of the terminal lymphatics in the mesentery of the cat were found to be distributed as an interconnecting network. However, a small number of blind lymphatic endings were seen and the pattern varied in different tissues.

The terminal lymphatics are flattened tubes 25-40 μm in diameter, 2 to 8 times wider than blood capillaries, have a thicker endothelium with gaps of up to 10 μ and numerous vesicles, and an absent or poorly defined basement membrane.[15,16,16A] The importance of the basement membrane in regulating the passage of large molecules has recently been recognized.[16B] In addition, Zweifach[15] noted only a 2-3 μm distance between contiguous terminal lymphatics and post capillaries and venules, as well as independent vessels. The larger lymphatics contain smooth muscle[17] and are contractible.

The anatomic demonstration of communications between the lymphatic and venous systems were demonstrated by Edwards and Kinmonth[18] in 1969. Shunts were noted in 2.3% of 700 patients by lymphography, all of whom had pathologic abnormalities (lymphedema, malignant disease of prior surgery); no shunts were found in patients with normal lymphatic systems.

Communications have been demonstrated to essentially all major veins,[19] but most laboratory studies have used unphysiologic pressures of intralymphatic infusion[20] simulating lymphatic obstruction. Indeed, ligation of the thoracic duct produces experimental proof of lymph drainage through these channels by intralymphatic injection of dye and RISA.[21] In an autopsy study using a radioactive and radiopaque medium, communications were demon-

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strated in 19 of 37 cadavers.[22] It is generally felt that although these conduits may exist 'normally' their primary significance are as alternate pathways for lymph flow during lymphatic obstruction[2, 11, 18, 19, 23] or overload.[2, 11] However, this function has been disputed.[1]

Physiology: Lymphatics and the Microcirculation

Implicit recognition of the dual roles of the lymphatic system in immunologic surveillance and maintenance of circulatory homeostatsis has been well established.[24] Focusing on the transport function of the lymph, recent[25] awareness of its importance has led to a revision of Starling's concept[26] of transcapillary fluid exchange to take into account the volume of lymph flow. The magnitude of the lymphatic return has been estimated at 0.1% of the cardiac output daily[27] and the transcapillary rate of escape of albumin has been measured at 5% per hour in normal adults[28] or half the circulating protein daily.[19, 29] The flow of fluid into the tissues depends upon the balance of capillary and interstitial hydrostatic and osmotic pressures, and its entrance into the lymphatics in normal states occurs despite a subatmospheric interstitial tissue pressure.[30] Pressures in the terminal lymphatics of the mesentery have been measured at 1.6 ± 2 cmH20.[15] The permeability to particulate matter (proteins and cells) depends upon the integrity of the endothelium with passage via gaps in the intercellular junctions and uptake by vesicles.[19] There appears to be a decreasing permeability gradient between the terminal lymphatics and the larger, more proximal ones.[15]

The mechanism of flow within lymphatics has been extensively investigated but remains unresolved. Two primary mechanisms have been postulated.[19, 24] The propulsion of lymph by the contractions of surrounding structures, primarily skeletal muscle,[31] and primary lymphatic smooth muscle peristalsis. The latter occurs only in those vessels containing smooth muscle.[15] A unified concept of lymph flow remains to be elucidated and will have direct bearing on understanding the disorders characterized by lymphedema.

Pathophysiology of Lymphedema

The prevalence of this disorder varies with geography and appears endemic in the Tropics with millions of cases[29, 32] and an increasing incidence elsewhere secondary to surgery,[33] trauma, tumor and radiation. Dale[34] recently summarized the classification of lymphedema into primary and secondary, and emphasized the clinical differentiation between venous and lymphatic edema.

In 1957, Kinmonth[35] first separated primary lymphedema according to age of onset with the arbitrary selection of age at 35 years, resulting in lymphedema congenita praecox and tarda. He further classified them according to the lymphographic appearance with aplasia, hypoplasia and hyperplasia.[36] There is evidence that in the hyperplastic group there is increased resistance to lymph flow, which has been attributed to valvular incompetence.[29] Associated congenital anomalies have been reported,[36] and it appears that true hereditary lymphedema (Milroy's Disease) is exceedingly rare and disappearing.[37] Saijo[38] has presented a unifying theory of lymphatic disorders based on the site of the lesion within the system, i.e., abnormalities of the terminal lymphatics result in lymphangioma, while lesions in the larger collecting trunks produce lymphedema.

The acquired lymphedemas are thought to be secondary to lymphatic obstruction, although general circulatory overload has been causally related.[29] Experimental obstruction causes elevation in lymphatic pressure which gradually returns to normal over 8 weeks and results in collateral development around the obstructed area and opening of lymphovenous communications.[19] Secondary changes occur with lymphatic dilatation and valvular incompetence and reflux.

Zweifach[15] has demonstrated in the cat mesentery that the normal value leaflets are spaced at intervals of 400-1500 μm, have a funnel-like shape, open with increments in pressure as small as 1-15 cmH20 and are able to withstand retrograde pressure up to 20 mmHg without becoming incompetent. Chylus reflux is well recognized in the closed body cavities, and its role in lymphedema of the extremities has been stressed by Tosatti[39] and reported by Kinmonth.[35] In a manner similar to neural axonal regeneration, the regrowth of interrupted lymphatics requires close proximity of the severed ends. In addition, collateral development is impeded by scar—either secondary to surgery, radiation or infection with fibrosis.[19]

Post-phlebitic lymphatic obstruction has been noted,[34] as has edema following successful and unsuccessful vein graft femoral popliteal revascularization.[33] Interference with venular outflow in both instances and an increase in inflow in the second would tend to favor filtration[19, 25] in the microcirculation, and overload of the lymphatics, especially in the presence of inflammation and infection.

Lymphedema following radical node dissection is typified by post-mastectomy lymphedema, and the role of lymphatic interruption in its genesis has been confirmed.[11] Venous obstruction has not been etiologically related and both post-operative wound infection and radiotherapy have appeared to increase the likelihood of this disability.[12] Indeed, Haagensen[40] stresses the role of minor trauma to the hands and arms following radical mastectomy with secondary infection, lymphangitis and obstruction. Five percent of his patients had edema noted immediately following surgery and 8 percent had secondary episodes of cellulitis of the arm with residual permanent edema. This compares with the reported incidence of lymphedema from 6.7 to 62.5% following this procedure.[41]

Parasitic filarial infestation induces massive fibrosis in the lymph nodes and channels in the groin, and obstruction.[42]

Special Studies in the Investigation Lymphedema

In addition to the history and physical examination in differentiating among the various causes of peripheral edema,[34, 36] lymphography represented the most significant advancement in characterizing and understanding this symptom complex. The technical aspects, indications, contra-indications, complications and usefulness have been reviewed in detail elsewhere.[1, 36, 43]

The use of subcutaneously injected radioiodinated serum albumin (RISA) in the extremity was the first objective physiologic test of lymphatic transport function.[44] It has been increasingly used in the postoperative evaluation of various surgical treatments[45, 46, 47] and can differentiate between lymphedema and other causes of edema (decreased and increased clearance respectively), although seldom clinically indicated.[29] In normal patients 75% of the RISA was removed in 24 hours while only 28% was cleared in patients with primary lymphedema. Improved clearances have been reported following the buried dermal flap procedure in the arm[45] while the same procedure performed on the leg by a different surgeon failed to significantly alter RISA uptake.[46] Hopefully this sensitive technique will help to evaluate the varied surgical procedures as well as operators.

Degni[48] has attempted to minimize the wide variability and reliability in circumferential measurements of the swollen extremity by instead constructing an apparatus to measure the volume of the limb. However, it is somewhat cumbersome and has not achieved widespread clinical usage.

Treatment

Non-Surgical. During the early stages of lymphedema the recommendation at present is for conservative therapy with elevation, elastic hose support and pneumatic compression.[12] There have been reports of complete resolution of the swelling with these measures but only rarely,[38] and some feel they are not suitable for children.[49] More often some degree of edema will persist or the disease advance. Cellulitis is the most serious repetitive complication.[12, 40] Other non-operative modalities have been attempted to interrupt the inexorable course including dietary weight loss, diuretics, fibrinolysin inhibitors,[29, 38, 50] hyaluronidase,[1] antibiotics, novocaine blockade of the limb[50] and the use of anti-coagulant and anti-inflammatory drugs (phenylbutazone derivatives).[1] Primary benefit appears to be gained from control of infection.[34] The measures to reduce swelling and eradicate infection are important facets of preoperative preparation (Figure 1).

MEDICAL THERAPY OF LYMPHEDEMA

A. Traditional
  (1) Elevation
  (2) Elastic Hose Support
  (3) Pneumatic compression
  (4) Antibiotics
  (5) Weight loss
  (6) Diuretics
B. Experimental
  (1) Fibrinolysin inhibitors
  (2) Hyaluronidase
  (3) Novocaine regional blockade
  (4) Anti-coagulants
  (5) Anti-inflammatory agents

Figure 1

Surgical. Kinmonth[36] summarized the indications for surgery: to reduce the mass of the swollen limb and return as much function as possible and to decrease the incidence of infection. Other indications such as cosmesis and prophylaxis of secondary lymphangiosarcoma should only be considered in elephantitic extremities in view of the relatively large scars left by most current procedures. (Figure 2).

INDICATIONS FOR SURGERY

A. Primary
  (1) Return of limb function
  (2) Reduction of limb volume
  (3) Decrease incidence of infection
B. Secondary
  (1) Cosmesis
  (2) Prophylaxis of secondary lymphangiosarcoma

Figure 2

In addition to the routine pre-operative care of the limb as noted above, Miller[51] has found a modified Thomas orthopedic splint suspended from an overhead bed frame useful in reducing edema until clinically absent.

Brief History of Surgical Approach. The surgical procedures for lymphedema can be divided into A) Excisional and B) physiologic (Figure 3). The first surgical attempt to treat elephantiasis was in 1841 by Lisfranc[1, 11, 47] who alternately needled or made

SURGICAL PROCEDURES FOR LYMPHEDEMA

- A. Excisional
  - (1) Thompson buried dermal flap
  - (2) Radical excision and grafting (Charles)
  - (3) Staged subcutaneous excision under flaps (Kondoleon)
- B. Physiologic
  - (1) Omental Transposition (Goldsmith)
  - (2) Pedicle flaps
  - (3) Lymphonodal anastomosis (sliding pedicle)
  - (4) Microvascular free flaps
  - (5) Multifilament wick
  - (6) Ligature of incompetent lymphatics
  - (7) Microsurgical lymphovenous anastomosis
    - (a) Lymphonodovenous anastomosis
    - (b) Direct lymphaticovenous anastomosis

Figure 3

superficial incisions in the skin at various levels without success. Likewise Cornochan's, 1852[52] ligation of the external iliac artery met with poor results. Beginning with Handley's 1908[53] description of his "lymphagioplastic" technique of burying silk threads in the subcutaneous tissue in post-mastectomy lymphedema to increase lymphatic flow a number of procedures were described in a short period. These were roughly divided into "physiologic or excisional" approaches. Most early physiologic procedures also involved excision of considerable amounts of subcutaneous tissue, to which any success was probably attributable. Not to be too harsh, however, for our knowledge of lymphatic physiology is incomplete, yet.

Lang (1911) performed elliptical excisions of skin and subcutaneous tissue along with drilling of the bone.[1] Kondoleon (1912) advocated excision of strips of subcutaneous tissue and muscle fascia in an attempt to promote drainage into the deep muscle compartment.[47] Charles, 1912[54] favored excision of the skin and edematous subcutaneous tissues with application of skin grafts directly to the muscle bed. The staged excision of skin and subcutaneous tissues with skin flaps (confusingly referred to as the Kondoleon procedure) was first described by Sistrunk(1918) and modified by Homans 1936.[47] Numerous other contributions have been made in this century and are reflected in the current status of lymphatic surgery. The Thompson-buried dermal flap procedure is a descendent of Kondoleon's concept of drainage of the superficial lymphatics via the deep system. Recognition of facial regeneration and scarring with subsequent separation of the two systems by Bertwistle and Peer[29] led Thompson to directly implant a shaved dermal flap along with its lymphatics directly into an intermuscular crevice in 1959.[55, 56] The operation is classically performed in two or three stages at three month intervals with the medial flap done first. Thompson excludes from his series those patients with extensive skin changes (gross hyperkeratosis and verrucae) and when dubious, tests the patency of the intradermal lymphatic plexus with intradermal injection of violet blue. He also does not consider cosmesis an indication because of the lengthy scar. In 1970 Thompson[55] reported on a 10-year-follow-up of 56 legs and 23 arms on which the procedure was used. "Good" results, defined as 75% or more reduction of swelling, return of normal limb function, and relief of the main complaint; and, "satisfactory" results (partial improvement in all three areas) were obtained in 92% of cases of primary lymphedema, in all cases of secondary lymphedema of the leg and in 94% of the arms treated for post-mastectomy edema. The most common complication was skin loss at the sutured margin of the raised skin flap in 33%. Two persistent epithelialized sinuses in the incision line required excision.

Chilvers and Kinmonth[57, 58] performed 79 operations on the leg and thigh using the buried dermis flap and 29 procedures using modifications of this and other excisional techniques. Forty-two percent of the group had delayed healing with 23% requiring excision of necrotic areas under anesthesia. Hematoma and operations on the lateral flap were felt to be significant factors related to tissue breakdown. Results comparable to Thompson's were obtained in 82% of the limbs.

Objective assessment of results in the arm with RISA was obtained by Harvey[45] on 8 of Thompson's patients. The percentage of the dose cleared in 24 hours was nearly doubled post-operatively. Conversely, Sawhney[46] did not find a significant change in the percent clearance of RISA in 24 hours in 5 legs with secondary lymphedema. He and others[51] have postulated that the success of Thompson's operation rests upon the excision of edematous subcutaneous tissue. Chilvers[57] and Miller[47] also point to the absence of lymphangiographic evidence of communications between the superficial and deep systems, and the puzzling success of this procedure in primary aplastic lymphedema.[55] In addition, the need for two and three stages is felt to be a drawback.[47] Tsadakas[52] has reported a one-stage modification of Thompson's technique with post-operative lymphagiograms revealing patent superficial to deep anastomoses Bunchman[73] had unsatisfactory results in 40; and, Sakaguchi an 87% success rate.[101]

A further theory[45, 55] has been advanced by proponents based on Emmett's[59] demonstration that in lymphedematous women that subcutaneous tissue pressure exceeds the muscle pressure—an apparent reversal of normal physiology. These gradients have not yet been evaluated postoperatively.

Following Charles[54] initial description of total excision of edematous subcutaneous tissue with the application of free skin grafts from distant sites, numerous minor modifications in technique have been suggested.[29] Gibson and Tough[60, 61] were the first to recommend harvesting of the skin grafts from the involved leg in suitable patients, and their one-stage procedure is in favor today.[62] It's application is primarily in cases refractory to other surgical modalities, especially failures of the buried dermal flap, with severe recurrent cellulitis and hyperkeratotic and verrucous skin changes.[29,62,63] Conservatism in the use of this procedure is warranted by the post-operative spindly deformity of the extremity with wide areas of anesthesia and frequent (28%)skin graft instability with breakdown, weeping, eczema, recurrent cellulitis and hyperkeratosis.[11,51,73] Failure to excise all diseased tissue has been implicated in recurrent edema.[62] In addition, operation on the lower leg alone is usually followed by a progressive increase in size of the untreated thigh.[55]

The "Kondoleon" procedure, based on the work of Sistrunk and Homans, has been advocated by Miller,[47,51] and Bunchman.[73] Their success with this operation is based on meticulous pre-operative care and operative technique. Resolution of edema with absolute bed rest, daily antiseptic skin perparation and prophylactic intravenous antibiotics are used. Operative blood loss is kept below two units and replaced with auto-transfused blood. Pneumatic tourniquet and general anesthesia are employed at bimonthly stated excisions, beginning with the medial flap. Wound drainage with red rubber catheters and a two-week period of post-operative elevation and immobilizaiton are provided. Eighty three percent (5/6) had at least 50% reduction in circumference with return of function and lack of complications.[47] One patient had a small area of skin loss. RISA studies revealed at 39% 24 hour clearance pre-operatively and an average 80% clearance one month post-operatively. Further follow-up on fourteen patients[51] has revealed a tendency to recurrent dependent edema, which is well controlled with elastic support and nonprogressive. Hypersthesia along the incision is noted and two patients had small areas of skin loss. All patients have been free of post-operative cellulitis.

Chilvers and Kinmonth[57] have reported the results of "Homan's" operation using simple flaps without any overlap or intermuscular burial on 23 limbs. Unfortunately their results are included with a larger series on which Thompson's buried dermal flap was used (see above).

Fonkalsrud[49] has used the "Kondoleon procedure" on thirteen children with primary lymphedema with "good" cosmetic results and a 10% circumferential reduction in "several" patients.

The increased post-operative RISA clearance reported by Miller is intriguing. He has postulated both improved function of the subdermal lymphatics and traumatic lymphatico-venous anastomoses post-operatively. However, the exact mechanisms remains to be determined.

In a series of publications[37,64,65] Goldsmith described the use of omentum as a lymphatic pedicle to by-pass areas of lymphatic obstruction. Experimental studies[65] were done ondogs, and nine to fourteen days post-operatively there was a lymphangiographic evidence of lymphatic flow via the omentum. The procedure was performed in two patients with primary lymphedema, two with acquired lymphedema and 3 women with post-mastectomy lymphedema. Five of the seven had a decreased incidence of cellulitis and all had good return of function post-operatively. Long term evaluation was reported in 1974[66] on 23 patients—13 with lymphedema of the leg and 9 of the arm, followed from one to seven years. Good results (at least one of the following): increased function, decreased circumference, decreased tissue turgor, or decreased incidence of cellulitis and subjective improvement were obtained in 38% of lymphedematous legs and 56% of lymphedematous arms. Complications included: inguinal and spiegelian hernias, three wound infections, pulmonary embolus, stress ulcer and upper intestinal obstruction. There was one fatality attributed to small bowel obstruction.

Modifications of the technique were described: subcutaneous tunneling of the omentum rather than division of the inguinal ligament to reduce the possibility of hernia, adequate fixation of the intra-abdominal omentum and meticulous technique with the use of absorable sutures to decrease the wound infection rate.

Criticism of this technique has come from several sources. Nylander[67] showed the absorptive capacity of the dog omentum to be poor. Danese[68] could not demonstrate lymphatic connections after the third month post-operatively in dogs and in all animals the omentum was encapsulated in a thick layer of fibrous tissue. Histologically it was consistent with scar, with a pseduoendothelial lining. Miller[47,51] has had poor results in three patients with the complications of intestinal obstruction and inguinal hernia. In one case, surgical re-exploration revealed the omentum to be enveloped in scar. Fonkalsrud[49] noted that the procedure is not theoretically suitable to patients with congenital lymphedema. The operation also involves excision of some subcutaneous tissue. Goldsmith[66] would not recommend this procedure to the inexperienced surgeon and instead would suggest an excisional one or Thompson's operation. However, it has been successful in selective patients and further evaluation is warranted.[29,52] Microvascular free flap transfer of omentum has been used in other situations,[69] but to our knowledge has not been used in the surgery of lymphedema.

Numerous other "bridging" procedures have been designed,[29] beginning with the Gillies-Fraser[70] technique. Subsequent modifications failed to adhere to the prerequisites established by Danese[68] for a successful lymphatic pedicle: 1) Lymphatics must be present in the flap; 2) the flap must be rotated in a manner consistent with the lymphatic valves; and 3) drainage of the lymphatic pedicle must be away from the area of blockage. In an experimental dog study he compared cervical, intercostal, omental and sliding (see below) pedicles and found only the first and last to be patent at 8 months.

The design of lymphatic drainage flaps appears to be limited only by the ingenuity of the surgeon. Smith and Conway[71] described the hinged flap and Hirshowitz[72] followed with the bi-hinged chest-arm flap. Mukherji[32] has used a cross-leg flap in unilateral lymphedema and forearm-leg flaps with bilateral disease. An unstated number of patients have been followed up to fifteen years with considerable improvement. Bunchman[73] has unsuccessfully attempted abdominal rotation flaps in three patients. Studies comparing the various pedicle flaps, even among small groups of patients, are lacking. Patients in the early stages of acquired lymphedema would appear to be ideal candidates for this type of drainage procedure. Its use in primary or advanced secondary lymphedema is not theoretically indicated.[68] Identification of appropriate patients is currently inadequate.

The microvascular techniques are summarized in Figure 4.

MICROVASCULAR TECHNIQUES

Lymphonodal Anastamosis—(sliding pedicle)
Microvascular free flaps
Multifilament Wicks
Ligature of Incompetent Lymphatics
Lymphovenous anastomosis
Omental transposition
Pedicle Flaps

Figure 4

Lymphonodal anastomosis as described by Danese,[68] is a "lymphoplasty." A two-inch segment of resected lymphatic channels afferent to the popliteal node was successfully bridged by elongation of the tortous lymphatics and suture of the afferent trunk to the node. The anastomosis was patent at 8 months post-operatively although at an unspecified period it was no longer demonstrable. Danese has performed this procedure on a single patient with "early" post-mastectomy lymphedema with excellent results. However, lymphangiographic follow-up is lacking. Further impetus for the production of lymphnodal anatomoses has been the field or organ transplantation[1,11] with extensive investigation of Yusupov 1970.[87]

The recently developed technique of free transfer of tissues in microvascular surgery has apparently not yet been applied to the surgery of lymphedema.[69,74]

Handley's[53] "lymphangioplastic" technique of subcutaneously implanting multiple silk threads and similar procedures utilizing rubber tubes, strips of fascia, cellodin tubes, nylon threads, polyethylene and nylon tubes have all met with limited success.[11,29] (Figure 5). The drainage of dependent fluid via capillary action is inadequate against gravitational forces and the use of reactive implants led to tissue inflammation and infection. Using the same material (polyethylene tubes) Mukherji[32] has had long term success and Bunchman[73] reports failure in one case. Silver[75] has implanted multi-filament teflon wicks in 16 patients with palliation of lymphedema and cellulitis from six months to five years. Average limb reduction was one centimeter and 4 patients underwent removal of partially extruded wicks.

MULTIFILAMENT WICKS

Silk Suture
Rubber Tubes
Strips of Fascia
Cellodin Tubes
Nylon threads, tubes
Polyethylene suture and tubes
Teflon Wicks

Figure 5

Degni[48] has constructed special instruments, including a 32 cm straight needle and two curved needles of the same length, in an elaborate attempt to fashion a subcutaneous nylon net in the extremity. Triamcinolone is administered post-operatively and average limb volume declined by 61%, wick extrusion was not a problem and overt infection was not noted. O'Reilly[76] has used monofilament nylon in 2 patients with post-mastectomy edema with good results. This procedure would only be indicated in those patients with non-reconstructable lymphatic disease, and in these cases excisional procedures have had had superior results.

Chylus reflux to the extremities has been noted following trauma, metastatic disease, filarial infection and in a primary syndrome associated with other congenital vascular anomalies.[36] Tosatti has been credited with proposing the ligature of incompetent megalymphatics at various levels in cases of lymph back flow.[1] He has recently advocated wider use of this procedure in an an attempt to stimulate development of "normal" collateral channels.[39,77] A more selective approach is used by Cariati.[63] The theory that a primary insufficiency of the lymphatic valves contributes to more than a few rare cases is unfounded. Indiscriminate widespread application of this procedure is not indicated in light of present knowledge.

Recognition of the existence of lymphovenous communications in normal and pathologic states (see above) and the embryologic, anatomic and physiologic affinity of the two systems led to the experimental production of anastomoses between them. The new field of microlymphatic surgery has been called the "epitome of microvascular surgery".[69] The techniques have involved either lymph node-to-vein or direct lymph channel-to-vein anastomoses, and each will be considered separately.

Because of the inherent difficulties in direct lymphaticovenous anastomosis and the lack of refinement in early microsurgical techniques, many investigators chose to explore lymph node-venous anastomoses, Del Torto[1] 1965, has been credited with the anastomosis of the efferent pole of an inguinal lymph node to the greater saphenous vein. Nielubowicz and Olszewski, 1966[78] reported the first experimental and clinical study. Follow-up of four patients[79] with secondary lymphedema from one to nine months post-operatively revealed persistent clinical improvement.

At the same time, Rivero, 1967[80] produced experimental evidence of RISA clearance via surgically created anastomoses in the popliteal space of the dog in the absence of lymphatic obstruction or edema. Subsequent investigation by the same group[81] failed to show patency after three months and there was marked regeneration of the divided lymph node and efferent lymphatics. Calderon, 1967[82] was unable to demonstrate lymphatic-venous flow by lymphangiography in dogs following anastomosis of popliteal nodes to saphenous vein or inferior cervical node to external jugular vein. Resolution of experimental lymphedema was not observed. Firica[83,84] has had success with this procedure in experimental reimplantation of limbs and lymphedema with lymphagiographic evaluation.

Clincal use of the technique is increasing. Politowski[50, 85] in 1969, summarized his results in sixteen patients 12 to 24 months after surgery.

Partial regression of the edema was seen in eight, no improvement in 6 and unsatisfactory results in two. Fourteen patients claimed subjective improvement and one developed a lymph fistula which closed spontaneously in 4 weeks. Krogh[86] reported a favorable outcome in a case of secondary lymphedema of the leg, while Bunchman[73] and Chilvers[57] have been unsuccessful. Further trials[88,89,92] and long term evaluation[90,91] have been presented.

Advancements in microsurgical techniques have made possible the anastomosis of lymph channels to veins. Laine and Howard, 1963[93] produced an end-to-side anastomosis to a canine fermoral vein over a polyethylene splint. The stent was removed via a lateral venotomy. Forty percent patency was obtained at 3 months although the anastomosis was partially stenosed in all cases. Rivero[80] and Calderon[82] could not produce patent communications between femoral lymphatics and veins in dogs. Their technique consisted of needle puncture of the vein and insertion of the lymphatic with either one suture or none respectively. Jacobson[94] achieved patency in 2 of 40 trials of end-to-end anastomsis at the same level using 5 ml sutures and needles with magnification.

Case reports[95,96] of anastomoses of grossly dilated lymphatic vessels to veins with good results have been presented in patients with chyluria and intestinal lymphagiectasia.

Yamada[97] performed end-to-end and end-to-side anastomses in the canine hind limb with the saphenous vein. Four to six evenly spaced No. 10-0 black teflon monofilament sutures and an interval polyethylene splint were used. All branches of the vein were ligated to prevent venous back flow into the lymphatics. Lymphagiographic patency was achieved in 44% of the end-to-end group and 36% of the end-to-side at 6 months, with reduction of experimental lymphedema by the former. Failure was attributed to inadequate technique, excess granulation tissue, infection and blood clot. The end-to-end anastomoses was felt to be superior to other techniques and an inert suture was used. Success was reported in a case of secondary lymphedema of leg with reduction in swelling following multiple direct shunts. Post-operative lymphangiography was not done.

McO'Brien[69] produced patent anastomoses after switching from an oblique union to an end-to-end anastomosis with the addition of subcutaneous heparin. The subsequent modification by Gilbert[97] of utilizing small venous tributaries distant from arterial pulsations, 19-micro m metallized nylon sutures and heparinized saline has produced immediate patency between vessels 0.3 to 1.2 mm in diameter. At 6 months 83% were patent and surgical technique was felt to be the major determining factor.

McO'Brien has treated 10 patients with secondary lymphedema of the arm. Multiple[2-7] anastomoses were made at the elbow or medial arm with a 25% reduction in limb volume at one month. However, continued conservative treatment was necessary to maintain this improvement. Further follow-up is warranted.

Application of these techniques to the surgical manipulation of the thoracic duct[98,99,100] has been reported, although beyond the scope of this review.

Kosa[102] has used tissue adhesive (Histoacryl-N-Blan) to reinforce the anastomoses between the thoracic duct and jugular vein in patients with portal hypertension, and to prevent lymph fistula.

Summary

The problems of lymphedema have been present since Hippocrates. Though numerous radical surgical approaches have been proposed there is no good evidence that they have improved the quality of life either functionally or physiologically.

The future may reside in microvascular surgery; however, extensive laboratory and clinical investigations is still required.

REFERENCES

1. The lymphatic System, Battezzati and Donini, Wiley, 1972
2. Threefoot SA: Gross and microscopic anatomy of the lymphatic vessels and lymphaticovenous communications. Cancer Chemotherapy Reports. 52:1-20, 1968
3. Mead RH: An introduction to the history of general surgery. WB Saunders Co, 1968
4. Rusznyak I, Foldi M, and Szabo G: Lymphatics and lymph circulation. London, Pergamon Press. 1960.
5. Sabin FR: The development of the lymphatic system in: Manual of human embryology, Edited by F. Keiber and FP Mall, Vol 2, JB Lippincott Co, Phil, 1912
6. Huntingon GS: The development of the lymphatic system in reptiles. Anat Rec 1911, 5:261
7. Huntington GS: The anatomy and development of the systematic lymphatic vessels in the domestic cat. Wistar Inst Anat & Biol, Philadelphia, 1911
8. Yoffey JM & Courtice FC: Lymphatics, lymph and lymphoid tissue. Cambridge, Harvard University Press, 1956
9. Copenhaver WM, Bunge RP, Bunge MB: Bailey's textbook of histology. The Williams & Wilkins Co., Baltimore, 1971
10. Croccet DJ: Lymphatic anatomy and lymphoedema. Brit J Plast Surg 18:12, 1965
11. Thompson N: The surgical treatment of chronic lymphedema of the extremeties. In: Surgical Clinics of North America, 47:445-503, 1967
12. Thompson N: Lymphedema of the lower extremity. P:939-954 IN: Plastic Surgery. ED: Grab WC and Smith JW, Little Brown & Co, Boston 1973
13. Malek P, Belan A, and Kocandrle VL: The superficial and deep lymphatic system of the lower extremities and their mutual relationship under physiologic and pathological conditions. J CardioVasc Surg, 5:686, 1964
14. Gough, MH: Primary lymphoedema: Clinical and lymphangiographic studies. Brit J Surg 53:917, 1966
15. Zweifach BW and Prather JW: Micromanipulation of pressure in terminal lymphatics in the mesentery. Amer J Phys 228:1326-1335, 1975
16. Casley-Smith JR: The fine structure, properties and permeabilities of lymphatic endothelium. Exp Suppl 14:19, 1967

16A. Casley-Smith JR: The functioning and inter-relationships of blood capillaries and lymphatics. Experientia 32(1):10-12, 1976

16B. Casley-Smith JR: Microvascular research 12:13-34, 1976

17. Courtice FC: Lymph and Plasma proteins: Barriers to their movement throughout the extra cellular fluid. Lymphology 1:9-17, 1971
18. Edwards JM, Kinmouth JB: Lymphovenous shunts in man. British Medical Journal. 4:579-81, 1969
19. Sterns EE: Current Concepts of lymphatic transport. Surgery, Gynecology and Obstetrics 138:773-793, 1974
20. Sabiston DC, Archer GW and Blalock A: Fate of cells in passage through lymphatics and lymph nodes. Ann Surg, 158-570, 1963
21. Pentecost BL, Burn JI, Davies AJ and Calnan JS: A quantitative study of lymphovenous communications in the dog. Brit J Surg, 53:630, 1966.
22. Threefoot SA and Kossover MF: Lymphaticovenous communications in man. Arch Inter Med, 117-213, 1966
23. Threefoot SA, Kossover MF and Aiken DW: Radioisotopic detection of lymphatico-venous communications in living animals. J Lab Clin Med 65:688, 1965
24. Hyman C: Physiologic functions of the lymphatico system. Cancer Chemo Ther Reports 52:25-30, 1968
25. Zweifach BW: Mechanisms of blood flow and fluid exchange in microvessels. Anesthesiology 41:157-168, 1974
26. Starung EE: On the absorption of fluids from the connective tissue spaces. J Physiol 19:312, 1896
27. Marty AT: Hyperonotic albumin therapy. Surg Gyn & Obs, 139:105-109, 1974
28. Parving HA and Gyntelberg F: Transcapillary escape rate of albumin and plasma volume in essential hypertension. Circ Res 32:643, 1973
29. Stone EJ, andHugo NE: Lymphedema. Surg Gyn & Obs 135:625-631, 1972
30. Brace RA, Guyton AC and Taylor AE: Re-evaluation of the needle method for measuring interstitial fluid pressure. Amer J Phys 229(3): 603-607, 1975
31. Hall JG, Morris B. and Wooley G: Intrinsic rhythmic propulsion of lymph in the unanesthetized sheet. J Physiol London 183:336-349, 1965
32. Mukherji M, and Benerjee D: Filarial elephantiasis of the leg. IN: Clinics in Plastic Surgery, 1:83-91, 1974
33. Porter JM, Lindell TD and Lakin PC: Leg edema following femoropopliteal autogenous vein bypass. Arch Surg 105:883-888, 1972
34. Dale WA: The swollen leg. Current problems in Surgery Yearbook Medical Publishers, September 1973
35. Kinmonth JB, Taylor GW, Trady GD and Marsh JD. Primary lymphedema; clinical and lymphagiographic studies of a series of 107 patients in which the lower limbs were affected. Br J Surg, 45:1, 1957
36. Kinmonth JB: The lymphatics: Disease, lymphography and surgery. The Williams and Wilkins Co, Baltimore, 1972
37. Goldsmith HS and De Los Santos R: Omental transposition in primary lymphedema. Surg, Gyn & Obs 125:607-610, 1967
38. Saijo M, Munro IR and Mancer K: Lymphedema: A clinical review and follow-up study. Plastic & Reconstructive Surgery, 56:513-521, 1975
39. Tosatti E: Editorial: The unresolved problem of peripheral lymphedema. Lymphology 6:167-168, 1973
40. Haagensen CD: The choice of treatment for operable carcinoma of the breast. Surg 76:685-714, 1974
41. Britton RC and Nelson PA: Causes and treatment of post-mastectomy Lymphedema of the arm. JAMA 180:95, 1962

42. Robbins SL and Angell M: Basic pathology P:169. WB Saunders Co, Philadelphia, 1971
43. Cahn EL and Steinfield JL: Edit: Conference on lymphography cancer. Chemotherapy Reports 53:1-228, 1968
44. Ju DMC, Blakemore A and Stenveson TW: A lymphatic function test. Surg Forum 5:607, 1974
45. Harvey RF: The use of ^{131}I labelled human serum albumin in the assessment of improved lymph flow following buried dermis flap operation in cases of post-mastectomy lymphedema of the arm. Brit J Radiol 42:260-265, 1969
46. Sawhney CP: Evaluation of Thompson's buried dermal flap operation for lymphedema of the limbs: A clinical and radioisotopic study. Brit J of Plastic Surgery 27:278-283, 1974
47. Miller TA, Harper J, and Longmire WP: The management of lymphedema by staged subcutaneous excision. Surg Gyn & Obs 136:586-592, 1973
48. Degni M: New technique of drainage of the subcutaneous tissue of the limbs with nylon net for the treatment of lymphedema. VASA 3:329-341, 1974
49. Fonkalsrud EW: Surgical management of congenital malformations of the lymphatic system. The Amer Jour of Surg 128:152-159, 1974
50. Politowski M, Bartowski S and Dynowski J: Treatment of lymphedema of the limbs by lymphatic-venous fistula. Surg 66:639-643, 1969
51. Miller TA: Surgical management of lymphedema of the extremity. Plastic and Reconstructive Surg 56:533-541, 1975
52. Tsadakas E, Rigas A and Chrysanthakopoulos S: Newer aspects in the surgical treatment of lymphedema of the extremities. Surg 68:419-25, 1970
53. Handley WS: Lymphangioplasty. A new method for the relief of the brauny edema of breast cancer and for similar conditions of lymphatic oedema. Preliminary note, Lancet 1:783, 1908
54. Charles RH: In Lathan A and English TC Editors: A system of treatment, London 1912, Vol 111
55. Thompson N: Buried dermal flap operation for chronic lymphedema of the extremities. Plastic and Reconstruct Surgery 45:541-548, 1970
56. Thompson N: Surgical treatment of chronic lymphedema of the lower limb. With preliminary report of a new operation. Brit Med J 2:1566, 1962
57. Chilvers AS and Kinmonth JB: Operations for lymphedema of the lower limbs. J Cardiovasc Surg 16:115-119, 1975
58. Kinmonth JB, Patrick JH and Chilvers AS: Comments on operations for lower limb lymphedema. Lymphology 8:56-61, 1975
59. Emmett, AJJ, Barron JN, and Veall N: The use of I^{131} albumin tissue clearance measurements and other physiologic tests for the clinical assessment of patients with lymphedema. Brit J Plast Surg 20:1, 1967
60. Gibson T, and Tough JS: The surgical correction of chronic lymphedema of the legs. Brit J Plastic Surg 7:195, 1954.
61. Gibson T, and Tough JS: A simplified one-stage operation for correction of lymphedema of the leg. Arch Surg 71:809, 1955
62. Hugo NE: Recent advances with the treatment of lymphedema. Surgical Clinics of North America 51:111-123, 1971
63. Cariati E, Alitta P, Taviani M and Pellicci R: Recent evaluation of the treatment of lymphedema. J Cardiovasc Surg 16:192-197, 1975
64. Goldsmith HS and De Los Santos R: Omental transposition for the treatment of chronic lymphedema. Rev Surg 23:303, 1966
65. Goldsmith HS, De Los Santos R and Beattie EJ: Relief of chronic lymphedema by omental transposition. Ann Surg 166:573-585, 1967
66. Goldsmith HS: Long term evaluation of omental transposition for chronic lymphedema. Ann Surg 180:847-849, 1974
67. Nylander G, and Tjernberg B: The lymphatics of the greater omentum: an experimental study in the dog. Lymphology, 2:3, 1969
68. Danese CA, Papaioannow AN, Morales LE and Mitsuda S: Surgical approaches to lymphatic blocks. Surg 64(4):821-826, 1968
69. McO'Brien B: Replantation and reconstructive microvascular surgery. Part 11. Ann of the Royal College of Surgeons of England 58:171-182, 1976
70. Gillies H and Fraser FR: Lymphedema treated by plastic operation. Brit Med J, 1:96, 1935
71. Smith JW and Conway H: Selection of appropriate surgical procedures in lymphedema. Plast. & Reconstr Surg 30:1, 1962
72. Hirshowitz B and Goldan S: A bi-hinged chest-arm flap for lymphedema of the upper limb. Plastic and Reconstructive Surg 48:52-55, 1971
73. Bunchman HH 11, and Lewis SR: The treatment of lymphedema. Plastic and Reconstructive Surg 54:64-69, 1974
74. Ostrup LT and Fredrickson JM: Microvascular surgery (Techniques and applications in plastic surgery). Scand J Plast Reconstruct Surg 10:18-28, 1976
75. Silver D, and Puckett CL: Lymphangioplasty: A ten year evaluation. Abstract presented at thirtieth annual meeting, the Society for Vascular Surgery, p 32, 1976
76. O'Reilly K: Treatment by nylon setons of lymphedema of the arm following radical mastectomy. The Med J of Australia, 1269-1270, June 1972
77. Tosatti E, Andrei A, Cariati E, and Prior C: A new surgical treatment for lymphatic and venous edema. J Cardiovasc Surg (Torino) 10:314-9, 1969
78. Nielubowicz J and Olszewski W: Abstract. Congress of the European section of the international cardiovascular society. Amsterdam, June 1966
79. Nielubowicz J and Olszewski W: Surgical lymphaticovenous shunts in patients with secondary lymph edema. Brit J Surg 55:440-442, 1968
80. Rivero OR, Calnan JS, et al: Experimental peripheral lymphovenous communications. Brit J of Plastic Surgery 20:124-133, 1967
81. Calanan JS, Reis ND, Rivero OR, et al: The natural history of lymphnode-to-vein-anastomoses. Brit J Plastic Surgery 20:134-145, 1967
82. Calderon G, Roberts B, and Johnson LL: Experimental approach to the surgical creation of lymphatic-venous communications. Surgery 61:122-128, 1967
83. Firica A, Ray A, and Murat J: Les anastomoses lymphoveineuses Etude experimentale. Lyon ChirurGical. 65:384-389, 1969
84. Firica A, Ray A, Muant JE and Tompkins RK: Alleviation of experimental lymphedema by lymphovenous anastomosis in dogs. The American Surgeon 40-412, July 1972
85. Politowski M, Martowski S, and Dynowski J: Lymphovenous fistula for treatment of primary lymphedema of the extremities. Polish Medical Journal 9:438-444, 1970
86. Krogh L: Lymphovenous shunt. SA Medical Journal 47:1389, 1973
87. Yusupov 1A: Joining of lymph routes and autotransplantation of lymph nodes in experiments. Acta Chirurgia Plasticae 12:235-245, 1970
88. Moreno-Gonzalez E, et al: Adenolympho-saphenous

anastomosis using the Nielubowicz–Olszewski Sakolowski method. Angiologia 24:5-8, 1972

89. Martorell F: Lymphaticovenous anastomosis at a treatment of lymphedema. Angiologia 21:61-3, 1969
90. Olszewski W: Lymphonodovenous shunts: seven year results for therapy of lymphoedema. Presented at the 4th Internal Congress of Lymphology. March 1973, Tucson
91. Nielubowicz J, et al: Late results of lymphovenous anastomoses. J Cardio Vasc Surg (Torino) Spec No 113-120, 1975
92. Cossu G, Scarduelli A, and Gregoratti L: Treatment of severe lymphedema of the extremities by venous-lymphatic anastomosis. ATTI, ACAS MED LOMB 271(104):55-60, 1972
93. Laine JB and Howard JM: Experimental lymphaticovenous anastomosis. Surgical Forum 14:111, 1963
94. Jacobson JH: Discussion. Surg 61:128, 1967
95. Cockett ATK and Goodwin WE: Chyluria: Attempted surgical treatment by lymphaticovenous anastomosis. The J of Urology 88:566-568, 1962
96. Mistills SP, and Skyring HP: Intestinal lymphagiectasia. Therapeutic effect of lymphovenous anastomosis. Amer J of Med 40:634-641, 1966
97. Gilbert A, et al: Brit J of Plastic Surgery in press. (cited in ref 69).
98. Donini I and Bresadola F: Cervical lymphovenous shunt in experimental ascites and in patients with hepatic cirrhosis. Lymphology 7:105-108, 1974
99. Zotti E, Lesage AM, et al: Prevention and treatment of experimentally induced ascites in the dog by thoracic duct-to-vein shunt. Surg 60:28, 1966
100. Warren WD, Fomon JJ and Leite CA: Critical assessment of the rationale of thoracic duct drainage in the treatment of porta hypertension. Surg 63:7-16, 1968
101. Sakaguchi S, et al: Thompson's operation on the lymphedema of an extremity. Operation 29:211, 1975
102. Kosa C, Bodrogi T, and Kaposi T: The utilization of tissue adhesives in lymphovenous anastomoses. Polymers in Medicine. 4(4)349-352, 1974

Trousers for Trauma Patients

Trauma occurs in epidemic proportions. Motor vehicle accidents alone account for more than 50,000 fatalities per year. While sophisticated rescue systems have enabled frequent salvage of patients suffering from acute myocardial infarction, there has been limited capability to improve the status of the severely injured patient before hospital treatment. Prolonged hypotension results in serious cellular disturbances of oxidative metabolism. Massive blood loss creates another set of problems—the need for blood banks and the risk of hepatitis transmission, as well as the hematologic, renal and pulmonary complications linked to multiple transfusions.

Civetta and his colleagues report on a device designed to prevent hypotension and additional blood loss. A garment, military anti-shock trousers (MAST), has been developed for this purpose. MAST consist of a one-piece, double-layered, polyvinyl fabric constructed like a pair of wraparound trousers. In use, it encloses the lower body from the rib cage margins to the ankle.

Three independent chambers (each leg and abdomen) can be separately inflated and deflated. In case of abdominal trauma, the autotransfusion effect of leg compression may be preserved during operation until surgical control of bleeding and volume replacement have been achieved. Each chamber has its own pressure-relief valve but is capable of sustaining internal pressures of 104 mm. Hg. Inflation tends to force blood from the enclosed segment of the body in proportion to the pressure applied. Full inflation has produced a significant increase in mean blood pressure in normovolemic subjects.

An estimated 750 ml. of blood is transferred to the central circulation. Inflation applies circumferential pressure to compress the venous system and also stems arterial bleeding.

To be most effective, MAST should be applied as soon as possible and should not be deflated until definitive diagnosis and/or treatment can be carried out. In practice, this means leaving the garment in use after hospital arrival and during x-rays, EKG, lab workups, obtaining blood specimens and assembling anesthesia and surgery teams. Careful adherence to gradual deflation, volume replacement as indicated and maintenance of inflation until all necessary preparatory steps have been taken will prevent recurrence of hypotension and/or shock. Transportation in the inflated MAST will minimize displacement of pelvic and other fractures.

The authors report that, while definitive claims relating to reduced morbidity and mortality cannot be promulgated at this time, immediate clinical improvement in terms of critical perfusion pressure, level of consciousness and physiologic stability has been demonstrated. Severe hypotension, reduction of blood loss and modification of the severity of shock are difficult to quantitate, compare and control. The authors' initial conclusions are that a significant new device has been introduced to treat certain patients before they reach the hospital. (*American Surgeon*, January 1977, p. 20.)

Adult Respiratory Distress Syndrome

Stephen B. Sulavik, M.D. and Thomas J. Godar, M.D.

Dr. Stephen B. Sulavik: Acute respiratory distress in the adult may be the result of a variety of disorders such as pneumothorax, left ventricular failure, foreign body aspiration, severe diffuse bronchospasm, and acute exacerbation of chronic bronchitis, and in these situations does not come as any great surprise. Current usage of the term Adult Respiratory Distress Syndrome (ARDS), however, implies a quite specific clinical, radiologic, physiologic, and pathologic sequence of events often occurring unpredictably in a patient whose primary clinical disorder may bear no direct relationship to the lung or to the heart.

Historical Perspective

This clinical syndrome was first observed on the battlefields during World War II. Combat casualties who experienced hemorrhagic and traumatic shock as a result of severe thoracic or *nonthoracic* injury after recovering from the initial shock were noted to develop within several hours to one or two days a severe and rapidly progressive pulmonary failure invariably ending in death. The term "wet lung" was applied to this sequence of events.[1]

During the Vietnamese War, primarily due to rapid helicopter evacuation within a few minutes to well equipped treatment facilities, large numbers of injured combatants were noted to develop this syndrome which was referred to as "shock lung" or "Da Nang lung."[2]

In the United States a similar clinical picture was observed in patients undergoing prolonged cardiopulmonary bypass, "pump lung" or "postperfusion lung", or had suffered nonthoracic trauma associated with multiple bone fractures, "pulmonary fat embolism syndrome". In 1967 Ashbaugh, et al[3], described twelve patients with either multiple trauma, acute pancreatitis, viral pneumonia, or drug ingestion who developed fulminant pulmonary failure. They likened the clinical and pathologic features in their patients to "postperfusion lung" and the respiratory distress syndrome of infants. Adult respiratory distress syndrome was suggested as a descriptive term describing this type of pulmonary failure regardless of cause. At the present time, numerous clinical disorders not primarily involving the lung have been shown to be related in some way to the development of this catastrophic event (Table 1). In 1972[4] it was estimated that approximately 150,000 patients suffered from ARDS, and there is substantial reason to feel that the number of cases occurring at this time is much higher.[5]

Clinical and Pathophysiologic Features

ARDS is characterized by the insidious onset of rapid, shallow breathing, increasing breathlessness, cough, diffuse rales with or without wheeze, which progresses rapidly to a refractory cyanotic state often associated with circulatory collapse and death, even with most modern therapy, in over 50% of patients. X-ray of the chest (Fig. 1) reveals a bilateral, relatively symmetric diffuse infiltrating lung lesion often progressing to a total "white out" of both lungs.

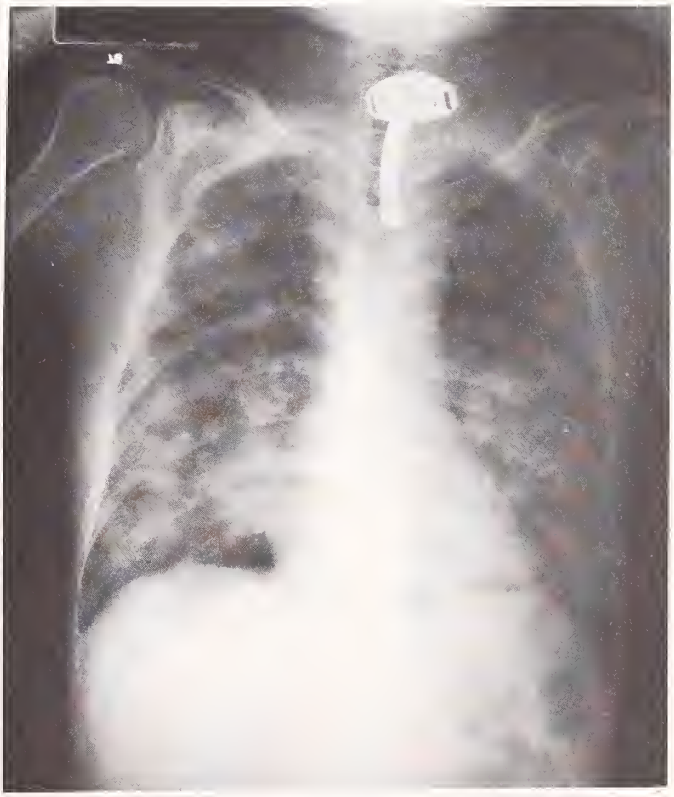

Figure 1
ARDS due to fat emboli.

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Table 1

ADULT RESPIRATORY DISTRESS SYNDROME—RELATED DISORDERS

Shock
- due to any cause

Trauma
- thoracic
- non-thoracic

Aspiration
- gastric content with low pH
- hydrocarbons
- fresh or salt water

Inhalation
- smoke
- high concentration O_2, NO_2, Cl_2, NH_3, mercury vapor, cadmium vapor, phosgene, trichloroethane

Drugs—Overdose
- heroin
- methadone
- barbiturates
- ethchlorvynol (placidyl)
- propoxyphene (darvon)
- acetyl salicylic acid
- diuril in normal dosage

Infectious
- viral pneumonia
- overwhelming sepsis
- rarely *Pneumocystis carinii* and lymphohematogeneous miliary TB

Immunologic
- Goodpasture's syndrome
- SLE
- transfusion reaction (leukocyte antibody)

Embolic
- fat
- amniotic fluid

Metabolic
- uremia with systemic hypertension
- hemorrhagic pancreatitis
- severe diabetic ketoacidosis

Miscellaneous
- increased intracranial pressure—any cause
- disseminated intravascular coagulation?
- paraquat—herbequat ingestion
- prolonged cardiopulmonary bypass
- postcardioversion
- eclampsia
- near fatal hanging

The physiologic hallmarks of this pulmonary catastrophe are a) severe arterial hypoxemia often unresponsive to enriched oxygen mixtures, intermittent positive pressure and positive end expiratory pressure breathing; b) marked reduction in lung compliance, "stiff lung". Hypocapnea with respiratory alkalosis is characteristic throughout most of the course until terminally when significant hypercapnea may result. Pathologic lung changes, usually demonstrated at autopsy, have been nonspecific.[6] They include interstitial and alveolar edema and hemorrhage, dilated and engorged capillaries, focal "congestive" atelectasis, hyaline membrane formation, vascular thrombi, fibrin deposition and occasionally fat emboli.

A reduced lung compliance and arterial hypoxemia are predictable physiologic consequences of the observed lung pathology in ARDS. Congestive atelectasis, loss of surfactant and decreased lung volume results in loss of compliance. Decreased ventilation in large areas of "congested lung" which continues to be relatively perfused results in varying degrees of arterial hypoxemia.

Pathogenesis

Primary Factor. Diffuse damage to the alveolar-capillary membrane with resulting increased capillary permeability appears to be the trigger mechanism common to all of the known medical and surgical disorders related to ARDS.[5] The specific pathogenesis of diffuse alveolar-capillary damage with "capillary leak" in most of the associate disorders is far from clear, e.g. acute pancreatitis, uremia, drug overdose, increased CNS pressure, sepsis, etc. In some related disorders, however, such as viral pneumonia, fat embolism,[7] and gastric juice aspiration, the pathogenesis is relatively well understood.

Secondary Factors. The deleterious pulmonary effects of increased capillary permeability, i.e., leakage of blood and plasma into the lung interstitium and alveoli may be compounded by secondary factors which may indeed determine the eventual clinical outcome in a given patient. Secondary factors favoring an increased accumulation of pulmonary interstitial and alveolar edema include a) increased capillary hydrostatic pressure, e.g. left ventricular failure, b) decreased plasma protein osmotic pressure,[8] e.g. hypoalbuminemia, c) failure to "drain off" pulmonary fluid by the pulmonary lymphatics. This may be due to loss of intrinsic rhythmic lymphatic contractions observed in anesthetized states,[9] e.g. drug overdose or impedence of lymphatic flow due to increased systemic venous pressure, e.g. right heart failure. Altered intrathoracic pressure relationships may also compromise lymphatic competence, e.g. use of continuous positive pressure breathing.[10]

Loss of surfactant invariably occurs promoting alveolar instability with alveolar collapse and congestive atelectasis. Factors contributing to reduced surfactant in ARDS include systemic hypotension, reduced pulmonary blood flow, ventilation with high tidal volumes, removal as a result of pulmonary edema and the administration of high concentrations of oxygen. Although decreased surfactant plays a vital role in augmenting an already serious situation, it does not appear to be the primary factor in the pathogenesis of ARDS.

Early Diagnosis

The overwhelming majority of patients diagnosed as ARDS are diagnosed at an extremely advanced stage of pulmonary edema. Commonly the physician has been unaware of the possible occurrence of ARDS when managing patients whose primary disease affects an organ other than the lungs and the obtaining of arterial blood gases and chest x-ray has usually been precipitated by the observance of severe tachypnea and cyanosis at bedside rounds.

It is important therefore to be aware of those disorders which are associated with ARDS so that *early* diagnosis can be made and early aggressive management of both the related disorder and the pulmonary failure be initiated.

Most helpful in early diagnosis is *frequent* and *accurate* recording of the respiratory rate. An increasing respiratory rate is the most important clue which may indicate early pulmonary edema formation and should be a signal to obtain arterial blood gases and an x-ray of the chest.

Comment

It is quite apparent that little is known with respect to the pathogenesis of alveolar-capillary damage in ARDS in the majority of related disorders. Rational therapy, therefore, other than therapy of the pulmonary failure itself is all but impossible. We would strongly suggest that ARDS be classified in terms of its associated or related disorders so that, as increasing numbers of cases of ARDS related to a specific disorder are studied, common pathogenetic mechanisms may be defined and more rational therapy provided.

Management

Dr. Thomas J. Godar: The early use of corticosteroids in fat embolism and chemical pneumonia due to gastric aspiration or inhalation of toxins such as smoke, NO_2, or phosgene has much clinical support, though good controlled studies are lacking. Experimental animals have been shown to have improved survival with corticosteroid treatment of fat embolism and hyperoxia-induced ARDS, though their effectiveness is unproven or controversial in other forms. Steroids probably ameliorate endothelial cell damage with its resultant "capillary leak", and reduce the loss of granular pneumocytes that is accompanied by the loss of surfactant and a propensity for microatelectasis. The increased alveolar surface tension that is associated with atelectasis can pull water into alveolar air spaces, further contributing to the characteristic "wet lung."

In the initial series of ARDS patients, Ashbaugh and co-workers found over-hydration present in 5 of 12 patients with ARDS.[3] For some years thereafter it was common practice to carry out vigorous hydration in trauma patients, or those in shock from any cause, on the assumption that it was both necessary and safe with the use of central venous pressure (CVP) monitoring. It has become clear that aggressive hydration using only a CVP line as a guide can contribute to ARDS, and the syndrome may appear during infusion therapy for shock states before a normal central venous pressure is reached. This was a common experience with battle casualties treated with plasma expanders, using the central venous pressure as a guide. The CVP does not accurately reflect pulmonary capillary hydrostatic pressure in patients with cardiac or pulmonary disease. Although adequate pulmonary perfusion is necessary to prevent or ameliorate ARDS, excessive infusion leads to increased lung water, and can precipitate pulmonary edema in the absence of either heart failure or pulmonary disease.[5] Hydration is best guided by a pulmonary artery "wedge" pressure via a Swan-Ganz pulmonary artery catheter. It should be used in all cases associated with shock as a guide to the use of pressor agents and hydration.

Atelectasis is important in the pathophysiology of ARDS and is manifested by hypoxemia and tachypnea. It should be treated early with appropriate control of airway secretions, periodic hyperinflation, and mechanical ventilation with large tidal volumes (12-15 ml./Kg. body weight), using low respiratory rates where feasible, and guided by serial arterial blood gas analysis. It is important to control hypoxemia that may lead to further lung damage and pulmonary hypertension with right heart failure. The early use of mechanical ventilation may reduce atelectasis and allow control of hypoxemia without resorting to high oxygen concentrations. Because ARDS is characterized by resistence to oxygen supplementation, high oxygen concentrations (60-100%) are needed to achieve acceptable P_aO_2 levels of 60-70 mmHg (torr). If the oxygen concentration used can be kept below 60%, and the exposure time limited to under seven days, the risk of oxygen toxicity effects is minimized.

Controlled mechanical ventilation using muscle relaxants and sedation may be needed to achieve adequate control of P_aO_2 and P_aCO_2 in the rigid, hemorrhagic, and wet lungs of ARDS patients.

Positive End-Expiratory Pressure (PEEP)

To achieve satisfactory arterial O_2 levels, where mechanical ventilation and 100% oxygen often fail, it may be necessary to maintain airway pressure throughout the respiratory cycle, including the expiratory phase when it normally reaches zero. The application of a distending pressure (usually 5-15 cmH_2O) during the expiratory phase results in distal airways having a larger volume, increasing the functional residual capacity (FRC). This is achieved by maintaining a more optimum alveolar volume for better alveolar-capillary gas exchange and recruitment of additional lung units that may be approaching a critical size where they tend to close unless inflated to a more stable volume. This closure of distal lung units would increase intrapulmonary shunting by reducing ventilation/perfusion ratios $(\dot{V}/\dot{Q})$, with resultant hypoxemia, and would further decrease lung compliance, increasing the work of breathing. PEEP has not been shown to decrease lung water content, but it can reduce systemic venous return, especially when the patient is deficient in plasma volume, resulting in a reduced cardiac output. When PEEP is used in patients who do not have the rigid lungs characteristic of ARDS, the increased intra-alveolar pressure is transmitted to the capillary bed as well as the central veins, reducing cardiac output, and impairing systemic oxygen transport. The mixed venous O_2 content (C_v-O_2) can be used to evaluate the effect of PEEP on oxygen transport, low levels implying poor O_2 transport to tissues. Excessive levels of PEEP will decrease C_v-O_2, usually by reducing cardiac output. Suter et al. evaluated "Optimum PEEP" in 15 normovolemic patients requiring mechanical ventilation for respiratory failure.[11] They found that PEEP levels that produced maximum O_2 transport (measured as C.O.x art. O_2 content) also resulted in the highest total static compliance. They reasoned that chest wall compliance was unchanged by treatment, but that lung compliance was increased by the recruitment of lung units as well as achieving more appropriate volumes in the alveoli that had remained open. Total compliance can be used to determine ideal PEEP pressures, avoiding the need to measure cardiac output. The compliance is measured as tidal volume (Vt) divided by the plateau pressure at end-inspiration with an inspiratory hold for 1-1.5 seconds minus the end-expiratory pressure (ml/cm H_2O). Suter and associates found the compliance to be 51± 4 when optimum PEEP was used, the latter ranging from 6-12 cm H_2O. Higher levels of PEEP have been used when a P_aO_2 below 50 mmHg was achieved despite PEEP levels of 15 cm H2O, and they have decreased the alveolar arterialO_2 difference, but carry an increased risk of pneumothorax, or pneumomediastinum, while not always improving oxygen transport. Suter and associates have demonstrated that although shunt fractions $(\dot{Q}s/\dot{Q}t)$ are often reduced with higher levels of PEEP, oxygen transport often falls concurrently.

PEEP should be used until adequate oxygen levels are achieved and sustained using oxygen concentrations of 40%, and until compliance is observed to improve. This will be associated with improvement in pulmonary infiltrates by x-ray. When PEEP is reduced to 3-5 cm H_2O and the P_aO_2 exceeds 60 mmHg. using 40% oxygen, PEEP can be discontinued, though the P_aO_2 should be repeated within 15 minutes to check stability, and mechanical ventilation should be uninterrupted for the following 12-24 hours to insure stability. At that time the patient may be permitted brief periods off the ventilator to assess status, while receiving the same oxygen concentration, usually beginning with five minute periods hourly. Accelerated weaning is a common mistake, leading to unnecessary reversals in convalescence. Indications for progressive weaning from ventilator support include adequate ventilation with stable P_aCO_2 levels, and an effective cough. Simple criteria for weaning from ventilator support are:

1. A maximum voluntary ventilation twice the minute ventilation.
2. A minute ventilation under 10-12 L/min.
3. A tidal volume over 5 ml./Kg.
4. A forced vital capacity over 10 ml/Kg.
5. A maximum inspiratory force greater than -30 cm H_2O.

More sophisticated indices are a measurement of alveolar-arterial oxygen difference less than 350 mmHg after breathing 100% O_2 for over 15 minutes, or a dead space/tidal volume ratio under 0.6 (0.25-0.30 being normal). The physiologic shunt can be measured with the patient on 100% oxygen and shunts under 20% support the safety of progressive weaning. Weaning is done in stages because of patient anxiety, generally slow pulmonary recovery, poor nutrition and the deconditioning that is associated with the mechanical ventilation period. Weaning is carried out with the patient upright as much as possible, and only one parameter is usually changed at one time, such as O_2 concentration, period off the ventilator, etc. Weaning of the debilitated patient may be smoother with the use of Intermittent Mandatory Ventilation (IMV), a technique that permits the patient to slowly increase the frequency of spontaneous breaths while still on the ventilator, without changing oxygen delivery or incurring CO_2 retention. Its use varies widely from one institution to another, depending on the staff, and the level of observation possible during the weaning process.

Extracorporeal Oxygenation

Hill, et al, used extracorporeal membrane oxygenators (ECMO) in 25 patients who were not responsive to the usual modalities of treatment for ARDS.[12] Thirteen were successfully removed from ECMO, but only 4 were long term survivors. The recommended indications for ECMO are: a. rapid deterioration after two hours with maximum ventilation support using 100% oxygen, with a P_aO_2 under 50 torr, or deterioration after 48 hours of maximum ventilation therapy with a PaO_2 under 50 torr using an F_IO_2 over 0.6 (over 60% O_2), b. the determination that there is a possibility for reversible lung disease and c. hypoxemia with myocardial or CNS depression. This modality is under study by the National Heart and Lung Institute. It should be regarded as experimental at present.

Prognosis

Prognosis is largely dependent on the underlying mechanisms for ARDS, as well as general factors of patient age, underlying chronic pulmonary or cardiac disease and the adequacy of therapy. Prognosis is good in ARDS due to fluid aspiration in young subjects but poor (60-70% mortality) in those due to Gram negative sepsis or fulminant influenzal pneumonia. Limited follow up pulmonary function data suggest slow but often complete recovery of function for many patients.[13] It is important to note that pulmonary function may be good in long term follow up despite the apparent presence of fibrosis by x-ray.

REFERENCES

1. Brewer LA, Burbank B, Samson PC and Schiff CA: The "wet lung" in war casualties. Ann Surg 123:343-362, 1946
2. Martin AM, Jr, Simmons RL, and Heisterkamp CA, III: Respiratory combat casualties: I. Pathologic changes in the lungs of patients dying of wounds.. Ann Surg 170:30-38, 1969
3. Ashbaugh DG, Bigelow DB, Petty TL, and Levine BE: Acute respiratory distress in adults. Lancet 2:319-323, 1967
4. Lung Program, National Heart and Lung Institute. Respiratory Diseases; Task Force on Problems, Research Approaches, Needs. Dept. HEW Publ. No. (NIH) 73-432, 171, 1972
5. Hopewell PC and Murray JF: The adult respiratory distress syndrome. Annual Review of Medicine 27:343-356, 1976
6. Lamy M, Fallat RJ, Koeniger E, Dietrich H, Ratliff JL, Eberhart RC, Tucker HJ, and Hill JD: Pathologic features and mechanisms of hypoxemia in adult respiratory distress syndrome. Am Rev Resp Dis 114:267-284, 1976
7. Peltier LF: Fat embolism: the toxic properties of neutral fat and free fatty acids. Surgery 40:665-670, 1956
8. Guyton AC, and Lindsey AW: Effect of elevated left atrial pressure and decreased plasma protein concentration on the development of pulmonary edema. Circ Res 7:649-657, 1959
9. Hall JG, Morris B, and Woolley G: Intrinsic rhythmic propulsion of lymph in the unanesthetized sheep. J Physiol. London 180:336-349, 1965
10. Woolverton W, Brigham KL, and Staub NC: Effect of continuous positive airway pressure breathing (CPAPB) on pulmonary fluid filtration and content in sheep. Physiologist 16:490, 1973
11. Suter PM, Fairley HB, and Isenberg MD: Optimum end-expiratory airway pressure in patients with acute pulmonary failure. N Eng J Med 292:284-289, 1975
12. Hill JD, et al: Prognostic factors in the treatment of acute respiratory insufficiency with long-term extracorporeal oxygenation. J Thoracic & Cardiovascular Surg 68:905-917, 1974
13. Lakshiminarayan S: Prognosis after recovery from adult respiratory distress syndrome. Am Rev Resp Dis 113:7-16, 1976

Increasing Incidence of Endometrial Cancer in the United States

The rising incidence of endometrial cancer in the U.S. is discussed in relation to its possible association with the use of estrogens by menopausal women. Data from 8 areas served by population-based cancer reporting systems indicate that after years of relative stability, endometrial cancer incidence rates have risen sharply in the 1970s. In some areas the increase has exceeded 10 per cent per year. The incidence among middle-aged women has changed most (by 40 to 150 per cent) between 1969 and 1973, (depending on the area) but rates have also increased in the younger age group and in the elderly. In this connection, the authors observe that 2 aspects of the incidence rates are possibly inconsistent with the estrogen-use hypothesis: (1) the incidence has risen somewhat in premenopausal and elderly women who do not commonly use replacement estrogens. Although oral contraceptives conceivably could be a factor, they should be, theoretically, less suspect because they also contain progestogens. (2) The various areas show substantial variance in the magnitude and regularity in the rise of endometrial cancer. This might reflect variation in the temporal pattern of estrogen use, but data for evaluation are now lacking. Weiss, N.S., Szekely, D.R., and Austin, D.F.: New England J. Med. 294: 1259 (June 3) 1976.

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Humanistic Studies in Medicine

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Ethical Issues Regarding the Delivery of Health-Care Services

Nicholas Rescher, Ph.D.

Introduction

It often happens in life that we are "of two minds" about something. Conflicting factors pull us in opposite directions and "we can see it both ways," so to speak. We feel ambivalent because there is a good deal to be said on each of two diametrically opposed sides. This produces the sort of situation which Marxist theoreticians like to refer to as a *contradiction.* In such cases the operation of conflicting forces impels us towards divergent and incompatible directions.

This paper will describe and examine three such conflicts or contradictions in the ethics of health care. These are:

1. the system vs. the individual
2. quality vs. equality
3. the present vs. the future

Each of these conflicts indicates deep ethical problems that have very practical and pressing implications for policy and procedure.

The System vs. The Individual

The first tension that I want to deal with relates to the issue of *the allocation of responsibility* for health care. Is it to be the individual himself who is primarily and predominantly responsible for seeing that his health-care services are adequately provided for in "the system" that society might institute through design or inadvertence? Such questions of responsibility clearly pose paradigmatically ethical issues.

In its present-day setting, this problem cannot be handled in the abstract on the basis of general principle alone. We must begin with a closer look at the realities of the situational context, and examine the actualities of the situation regarding threats to health and the delivery of health-care services.

What is striking to anyone who studies the historical statistics of the causes of death in the U.S. is the massive role among these causes of conditions traceable to what may simply and honestly be characterized as *bad personal habits.* Consider the state of affairs portrayed in Table 1.

Table 1

DEATH RATES FOR SELECTED CAUSES: 1972
(PER 100,000 POPULATION)

1.	Major cardiovascular diseases	494
2.	Malignant neoplasms	167
3.	Influenza and pneumonia	29
4.	Diabetes mellitus	19
5.	Cirrhosis of the liver	16
6.	Certain diseases of early infancy	16
7.	Bronchitis, emphysema, and asthma	16
8.	Motor vehicle accidents	27
9.	Other accidents	27
10.	Suicide	12
11.	Violent crime	9

Data from *Statistical Abstract of the United States: 1974* (Washington, 1974), p. 62.

The historical statistics indicate a tendency for death rates to increase markedly from conditions traceable to the impact over many years of "bad" personal habits: smoking, drinking (and drugs), inactivity, and poor diet contribute significantly to some of these items—drinking for example, especially to item 8 (two-thirds), and one-half of all homicides and one-third of all suicides in the U.S. We all know the propaganda about these "diseases of affluence" as they have been called. Middle-aged men who are 20% above normal weight run 2-3 times the risk of fatal heart attack. About 75% of lung cancer is caused by smoking. Death rates for heart attacks in men range from 50 to 200 percent higher among cigarette smokers than among non-smokers depending on age and the amount smoked. But I shall not prolong this statistical litany.

As one examines the major elements of the casual situation regarding the big killers that represent the major threats to health, the consideration is forcibly brought home to us that an increasingly improminent role is played by those factors (communicable diseases and non-automotive accidents) over which the

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individual has relatively little control, and an increasingly *prominent* role is played by those factors over which the individual himself in fact has substantial control. Like it or not, we are driven towards the conclusion that in very large measure it is the individual himself who alone can and should take the responsibility for delivering the great bulk of health-care services he stands in need of.

This line of thought indicates the unrealism of some of the current discussions on health-care delivery. All too often one hears the issues posed in the format of a Victorian melodrama. We have the villain (the existing institutional system), the hapless heroine (the poor person being denied health-maintaining services), the hero (the state that forces the villain's hand in doing the heroine justice), the appreciative bystander (the cheering public). The monitory example along the lines of the poor man with appendicitis being turned away from a mercenary hospital to perish miserably in the streets. This sort of picture cannot withstand critical scrutiny. Even a cursory look at the fact of the situation is enough to show up the unrealism of it all as a pattern for the problems of distributive justice in the medical area.

If this perspective is anything like correct, it bears some very uncomfortable implications. What we're addicted to—and pretty competent at is handling issues that revolve about technological solutions and systems-design problem-solving. We are fascinated by problems that admit of economico-political solutions and all for expanded funding and administrative rationalization. What engages our attention are things like getting an ambulance service better able to care for heart-attack victims or the really big issues of distributive imbalance: geographical imbalance (getting more doctors into the rural areas) and service-imbalance (fewer narrow specialists and more doctors in family practice and other primary care activities). And there is no question that such problems are important and difficult. But important though they are, they yet remain second-order—or even fourth-order—considerations in the larger health-care picture.

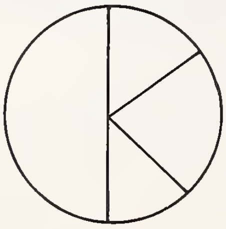
We have to face up to the sobering but inescapable fact that no foreseeable improvement in medical practice or in the distribution of medical services could make an impact on the health of Americans *that would amount to more than a minute fraction* of the improvement that could be wrought by the cultivation of better personal habits.

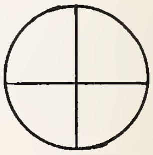
The major issues—I would like to suggest—have to do with matters of a rather different sort where the deficiencies lie in the sphere of the individual rather than that of "the system." And just this is the source of the discomfort. For the real issues turn on questions of the sensible attitude and intelligent action of the level of the individual. They root in the facts of human heedlessness and stupidity. It is clear that such factors are comparatively intractable and do not lend themselves to monetary or administrative resolution. The basic issue is one of the relative effectiveness of public action vs. private values in grappling with the issues. It would be a grave—even if comforting—illusion that a combination of funding and statutory manipulation will prove of substantial avail here. For what we most urgently need is not socialized medicine, or an ampler infusion of funds into the medical area, or a better distributive system of medical services, but a larger dose of old-fashioned morality or even plain common sense. Unfortunately, the latter items are a lot harder to come by than the former.

Quality vs. Equality

Let me now turn to the next tension or "contradiction" I would like to consider—that of quality vs. equality.

In the *modus operandi* of a system for providing health-care services this fundamental tension crops up from many points of view. One faces in various ways the choice between equal care vs. a superior system for providing care in general. It is a question of a smaller pie divided equally vs. a larger pie where everyone is better off but the divisions are unequal:





Let me give a very concrete example of this. I have long admired the National Health Service of Great Britain as an intelligent and efficient component of a combination of public and private medicine, a two-track system of publically and privately financed medical care both functioning at what—under the realistic circumstances at issue—deserves to be considered a very high level. But some parts of this combination reflect a highly pragmatic compromise made when Parliament instituted the NHS in the post-war period: the allocation of some private beds in the public hospitals and the provision of some supporting services (x-ray facilities, laboratory facilities, etc.) by the public to the private center—in both cases at charges that more than meet the actual expenses involved. This pragmatic compromise has in fact proved very advantageous for public-sector medicine. By exacting a partial subsidy for the private sector it has made the public system superior to what it otherwise would be. And by helping to make medical practice more attractive it has helped to recruit and retain practitioners for British medicine.

On the other hand, there is no question that the two-tier system produces inequities. The private patient has a wider range of choice of physicians and services at his disposal than the public health patients do. And above all the private patient can get himself into an operating theater for a nonemergency procedure in short order as compared with the many months that a NHS patient would spend cooling his heels on a long waiting list.

I need not take much time to draw for you a picture of how this situation sits with the academic ideologues of the Labor Party and with its working-class adherents (at any rate in those trades whose unions have not managed long ago to persuade management to provide for private medical insurance). So there is now afoot a powerful movement—with nurses and technicians foremost in the ranks—to undo the compromise of the 1940's and bring about a divorce between public and private medicine. Purblind pursuit of the rigid equality is bound in this context to diminish the capacity of NHS medicine to maintain the quality of service it could otherwise deliver. But this consideration cuts no ice with the doctrinaire ideologues of the left.

I don't want to put too much stress on the details of this case. Perhaps I have drawn its lines too harshly for the sake of an example. But so drawn it does at any rate serve nicely to illustrate the fundamental point I am concerned to make.

We face here what is a rather general issue of distributive justice throughout many contexts, namely the issue of *more* vs. *more equal*. There are various situations where a situation that is *unfair* may nevertheless not be *unjust* in a deeper sense—provided the unfairness can be shown to work itself out of the general advantage. We face the deep question of whether equality is not bought at too dear a price if it can only be had by compromising the qualities of the services available to *everybody*. The example I have adduced of the tension in the delivery of medical services between the systematic quality of service vs. equality of access seems to present a vivid illustration of such a situation.

The Present vs. The Future

I shall now turn to my third and final example of a tension or "contradiction"—that between the demands of the present and those of the future: the claims of the living vs. those of the yet unborn.

Let me begin by stating emphatically what I'm *not* going to discuss—namely abortion and the claims to sympathetic medical attention of *homo sapiens* in the incipient stages. My reason for desisting from this topic is neither that it's not an ethical issue (it is!), nor that it is not important (it is!). Rather, it is that this issue has been talked around to such an extent that further rational discussion scarcely seems profitable. Too many verbal dances have gyrated around the issue and too many semantic efforts made to exorcise the real issues by the magic of words. For example, designating an incipient *homo sapiens* as a "foetus" instead of a "baby" does not seem to me to accomplish anything beyond begging the question at issue. Or again, conceding a woman a right to *her* body (something no sensible person would refrain from doing) does not seem to me to provide a basis for settling the issue of life or death for *another* human life that happens temporarily to be implanted within this body—any more than it would settle the question of the ownership of a swallowed jewel.

Having broached the subject it would be cowardly to leave it without stating my own view. It is simply this. Ontogeny recapitulates phylogeny—the developmental process of the origination of the individual mirrors in its rough structure the evolutionary process of the development of the race. In the early weeks of foetal development, one deals with an aquatic or amphibious creature (at the strictly biological rather than bio-chemical level, to be sure), but after some months there is no question—even on grounds of strictly macrobiological analogies—about its being a *human* that is at issue. To be sure an *exact* cut-off can never be found in such cases, but the division will certainly fall somewhere between the second and fourth month of term. The needless termination of life after that point is—so far as I can see—biologically, medically, and morally unjustified. But, having admitted to this illiberal heresy in very blunt and dogmatic terms, let me pass on to other and more profitable concerns.

The issue I actually want to deal with is a problem that comes in the more comfortable form of a resource-allocation question. Specifically, it is the problem of the costs and the benefits of medical research.

Historically, this was a non-issue. Even a single generation ago, the amount of money and talent invested in medical research was a trivial quantity.

For example, less money was spent on polio research in the entire prewar generation 1915-1945 than in any pair of years during the decade after 1948.

Throughout the early 1960s substantially more was spent on medical research than on nursing home care throughout the U.S.

In the early 1970s we spent annually on medical research and development an amount standing at some 6% of the total costs of hospital care and at more than 12% of the sum-total of physicians' services.

And in recent years the growth of medical R&D expenditures has been particularly dramatic, to the point where these costs are a substantial share of the over-all pie of total health costs. Medical R&D outlays have increased from a 3% slice of a \$26 billion pie in 1960 to a 4% slice of a \$94 billion pie in 1973—an impressive quadrupling from \$.85 billion in 1960 to 3.5 billion in 1973.[1]

A very general and fundamental point about the development of science is forcibly illustrated by bio-medical research rather than violated by it. In the course of scientific progress one solves the relatively easy and straightforward problems first and puts the relatively more complex and intractable ones off to the future. As time goes on, problems become more difficult.

The medical area affords an interesting illustration of the extent to which latter-day problems tend to be more intractable than earlier ones and demand for their solution a vastly greater resource-investment. The historical predominance of the diseases that represent the major killers is set out in Table 2.

Table 2

THE KILLER DISEASES*

	Percentage of deaths occurring are caused by		
Cause of Death	*1900*	*1930*	*1960*
Heart Disease and Stroke	15.4	35.9	54.0
Influenza and pneumonia	11.8	9.1	3.9
Tuberculosis	11.3	6.3	0.6
Gastritis, duodenitis, enteritis, and colitis	8.3	2.3	0.5
Children's ailments (measles, diphtheria, whooping cough)	3.8	1.1	0
Cancer	3.7	8.6	15.6
Typhoid and para-typhoid fever	1.8	0.4	0

*Data from *Economic Costs of Cardiovascular Disease and Cancer, 1962* (Washington, 1965; Public Health Service Publication No. 947-5), Table 1.

The record of success is doubtless impressive: more than half of the big killer-diseases of 1900 have virtually been eliminated as serious threats. But what is significant from our angle is the greater intractability of the problems that remain. Finding a cure for TB or gastritis or diphtheria is still small potatoes compared with finding a cure for today's big killers. In 1962, a total of \$1,032 x 10^6 was spent on medical research in the U.S., distributed as follows.[2]

\$117 x 10^6	Cardiovascular Disease
\$128 x 10^6	Cancer
\$787 x 10^6	Other

The U.S. was spending more money (and effort) on cancer in 1962 than it was spending on *all* of medical research in 1950—and (arguably) more than had been spent on all of medical research in the history of mankind until 1940. Phenomenally, this massive expenditure has more than doubled to \$2,277 x 10^6 by 1972 and America is currently spending on medical research an amount that is somewhat over 4% of what private consumers are expending on medical care.[3] The scale of this research effort is truly impressive. Of course, one tackles the easier problems first—that goes without saying. But the striking thing is the *extent* to which the later problems become more difficult and demand ever increasing levels of effort for their resolution—in the bio-medical area exactly as elsewhere in natural science. It is sobering to contemplate the vast efforts and expenditures of present-day drug research when one considers that the basic research that led to the discovery of penicillin was a shoe-strong operation whose whole cost did not come to more than \$20,000.

We thus find ourselves entering into the characteristic condition of a classic law of diminishing returns: costs rise, the significance of results diminish on the average, the waiting times for significant results increase dramatically. Many observers have commented on the ironic fact that, as one acute British writer recently put it:

> It is precisely during the last two decades—when scientific medicine is alleged to have blossomed and when the quality of resources allocated to medical care has rapidly increased—that the decline in mortality that has been associated with industrialization has tapered off to virtual zero.[4]

Indeed some observers see the situation not in terms of a slow-down but in terms of a stoppage. The eminent Australian immunologist Sir Macfarlane Burnett (Nobel Laureate in Medicine, 1960) after surveying work in the biological sciences concludes:

> After working for a year on the present book I cannot avoid the conclusion that we have reached the stage in 1971 when little further advance can be expected from laboratory science in the handling of the 'intrinsic' types of disability and disease. There will always be possibilities of improvement in detail but I am specially impressed by the fact that since 1957 there has been no new thought on the handling of cancer, of old age, or of auto-immune disease. The only real novelty has been kidney transplantation. . . . None of my juniors seems to be worried as I am, that the contribution of laboratory science to medicine has virtually come to an end. The biomedical sciences all

> continue to provide fascinating employment for those active in research, and sometimes enthralling reading for those like me who are no longer at the bench but can still appreciate a fine piece of work. But the detail of an RNA phage's chemical structure, the place of cyclostomes in the evolution of immunity or the production of antibody in test-tubes are typical of today's topics in biological research. Almost none of modern basic research in the medical sciences has any direct or indirect bearing on the prevention of disease or on the improvement of medical care.[5]

The lesson of these considerations for our purposes is contained in two facts. (1) Research is getting so expensive as actually to direct significant resources from delivery of health-care. (2) Progress is so slow and the payoff on research such a long term issue that the benefit of research may never redound to those actually making the investment but that only their historical successors will be the real beneficiaries.

Consider the increased waiting-times involved between the initiation of an intensive research effort and its successful issue in decisive preventative or curative instrumentalities. For the communicable diseases that were big killers at the turn-of-the-century this was a matter of a few years and some tens of thousands of dollars; for polio it was a matter of a couple of decades and some $25 million; for cancer the escalation may well reach billions of dollars stretched over a whole century.

Such a massive increase in research costs and elongation of gestation-period exemplifies the operation of my third "tension" or contradiction, the claims of the present vs. those of the future. There can be no question that the massive requirement of medical research for the investment of material resources and skilled manpower leads to a substantial curtailment of our capacity to deliver health-care services here-and-now.

And there is another ramification of this theme that deserves at least passing mention. As medicine advances into regions of ever-growing complexity and sophistication, the demands on talent, human services, and equipment grow to a point where the economics of therapy become unmanageable. The patient himself has already arrived at this juncture of economic incapacity in more cases than one likes to think of. And the time when third-party insurers will get there is not all that far away. More and more the real question does not revolve around the *technical* issue of what we *can* do, but the *economic* issue of what we *can afford* to do. This whole area of choices is heavily laden with ethical ramifications.

There is one methodological point I would like to dwell on for a moment in this connection. My discussion has in large measure been woven around statistical themes. And this is quite deliberate. There is a very strong temptation in the domain of biomedical ethics to focus on exotic matters that appeal to the imagination. Accordingly there is a noticeable tendency—quite pronounced among newspaper columnists but also present among my philosophical colleagues—a tendency to dwell on theoretically intriguing, exotic issues like psychosurgery or humanoid cloning. However much such issues may appeal to the science-fiction fan inherent in each one of us, they are not now (and are not likely soon to become) an actually pressing issue in day-to-day medical affairs. To focus attention on such exotic matters is to become entrapped in a kind of unrealism that abandons the really *important* issues in turning away from the practical concerns of "the real world." Accordingly I have focussed upon statistically prominent phenomena precisely because of my wish to confront problems that have an interest transcending the perspective of the armchair theoretician.

Conclusion

It is time to summarize. I have tried to draw your attention to three conflicting tensions in the area of the delivery of health-care services:

(1) the extent to which responsibility can be imputed to "the system" for delivering medical services vs. the extent to which it does and should rest with the individual.

(2) the relative desirability of enhancing the over-all quality vs. equality-of-access to medical services.

(3) the claims of the present vs. those of the future as an issue posed by the escalating resource-demands of biomedical research.

Each of these cases has the classic form of a moral dilemma—in each instance we are torn in a conflict of two discordant desiderata: All three of these issues (the individual vs. the system, quality vs. equality, the present vs. the future) pose problems of a very general sort that arise as ethical issues in many areas—for example, in economic policy. But they seem to me to pose particularly relevant and increasingly pressing problems in the medical context because the stakes are so high, since the very physical well-being and indeed the lives of people are at stake.

I confess with some dismay that nothing I have said can lay any claims to provide—or even to point towards—a straightforward solution of these problems. Still, there are, I think, some pretty clear morals that emerge more or less spontaneously once the issues are laid out.

1. Our concern for the delivery of health care services has been too system-oriented. People as individuals *can and should* carry a far heavier burden of

responsibility here.

2. The desideratum of equality—no matter how legitimate a value in its own right—should not be promoted in so doctrinaire and unthinking a way as to dilute the capacity of the health-care system to serve the community at large.

3. We should acknowledge as real and authentic the claims presently made upon us by the concerns of the future through the mediation of research. And this should be done with open eyes, with the realization that these claims may become very large indeed if substantial progress is to be made as one penetrates further into the area of diminishing returns.

To be sure, these are all controversial matters—in the manner typical of ethical questions in general.

At any rate, I do hope that my remarks may at least contribute to a clearer formulation of the issues. Even this modest goal is hopefully of some utility. After all, one is not likely to arrive at sensible solutions to difficult problems in the absence of critical analysis of their nature.[6]

REFERENCES

1. Data from BC Cooper, NL Worthington and PA Piro, "National Health Expenditures: 1929-1973" (Washington, D.C., 1974; *Social Security Bulletin*, February 1974 issue)
2. *Ibid*
3. BC Cooper, *et al, op cit*
4. John Pawles, "On the Limitations of Modern Medicine," *Science, Medicine and Man*, vol 1 (1973), pp 1-30 (see p 2)
5. *Genes, Dreams, and Realities*, Sir Macfarlane Barnet, Basic Books, Inc NY 1971
6. In writing this lecture I have been greatly helped by the suggestions and materials provided by Dorothy P. Rice (Deputy Assistant Commissioner, Social Security Administration), Solomon Schrezder (Acting Associate Director for Program Planning and Evaluation, National Institutes of Health), and Herbert P. Woolley (Economist, National Institutes of Health).

Crohn Disease: First Description

We propose to describe, in its pathologic and clinical details, a disease of the terminal ileum, affecting mainly young adults, characterized by a subacute or chronic necrotizing and cicatrizing inflammation. The ulceration of the mucosa is accompanied by a disproportionate connective tissue reaction of the remaining walls of the involved intestine, a process which frequently leads to stenosis of the lumen of the intestine, associated with the formation of multiple fistulas.

The disease is clinically featured by symptoms that resemble those of ulcerative colitis, namely, fever, diarrhea and emaciation, leading eventually to an obstruction of the small intestine; the constant occurrence of a mass in the right iliac fossa usually requires surgical intervention (resection). The terminal ileum is alone involved. The process begins abruptly at and involves the ileocecal valve in its maximal intensity, tapering off gradually as it ascends the ileum orally for from 8 to 12 inches (20 to 30 cm). The familiar fistulas lead usually to segments of the colon, forming small tracts communicating with the lumen of the large intestine; occasionally the abdominal wall, anteriorly, is the site of one or more of these fistulous tracts.

The etiology of the process is unknown; it belongs in none of the categories of recognized granulomatous or accepted inflammatory groups. The course is relatively benign, all the patients who survive operation being alive and well.

Such, in essence, is the definition of a disease, the description of which is based on the study, to date, of fourteen cases. These cases have been carefully observed and studied in their clinical course; the pathologic details have resulted from a close inspection of resected specimens from thirteen of fourteen patients operated on by Dr. A.A. Berg.

Crohn BB, Ginzburg L, Oppenheimer GD: Regional enteritis: A pathologic and clinical entity. *JAMA* 99:1323-1329, 1932.

The AMA-Washington Office:

What It Does and How It Functions

Physicians feel frequently that the Federal Government is far too much involved these days in their profession's and patients' destinies.

Indeed, physicians can hardly be blamed for feeling this way.

Increasingly the Congress demonstrates its preoccupation with health and medical care by tinkering with it. Congress schedules and holds hearings; debates and passes bills; and functions overall so industriously that of the 25,000 or so measures introduced into each Congress, some ten percent bear directly or indirectly on health.

Once the new laws are on the books, the administrative agencies take over the business of implementation. That means that regulations must be drafted and argued and adopted.

Neither legislation nor regulation can be ignored. As true as it is that the power to tax is the power to destroy, so the power to regulate can be the power to paralyze, to strangle, and ultimately to destroy. Intelligently drawn regulations can make poor laws workable and badly drawn regulations can make good laws unworkable.

And so the symbiotic relationship on laws that exists between the legislative and the executive branches of the Federal Government demands unremitting vigilance.

The American Medical Association exercises that vigilance, and has since 1944, through a Washington Office.

The Washington Office has a number of functions:

*It is an intelligence-gathering organization, charged with the responsibility of staying abreast of Congressional thinking, planning and action; and with maintaining an equally close vigil on the doings of the various executive departments and agencies.

*It is a podium from which to disseminate AMA thinking on a variety of subjects of concern to government—AMA agreement, disagreement, caution, modification, proposed solution, or information to lawmakers and media alike.

*It is a mechanism for providing service to legislators and administrators; an on-the-spot AMA presence; a two-way conduit between those who make and administer the laws and the medical professionals who must live with the laws and try to make them work.

There is no perfect way for the Washington Office to go about its complex tasks. In consequence, neither table of organization nor administrative method have remained immutable over the years. Efforts to increase the effectiveness of the Washington Office are always being made.

But in general, the Office works as a modestly staffed, highly specialized group of experts who serve as the extended arm of the AMA in Chicago.

Today the Washington Office is a unit of the Division of Public Affairs, linked so closely with Chicago by tie-lines, teletype and thermofax that contact is continuous throughout the working day. And often goes on well after the day has ended.

Under a Washington Office Director and his deputy are these key people:

A director and four assistant directors of the Department of Congressional Relations. Between them, these five men cover all 535 Members of Congress and their staffs; and work particularly closely with the staffs and Members of those key committees through which the bulk of important health legislation must pass.

Each lobbyist is also assigned the responsibility of maintaining liaison with a number of state medical societies.

The deputy director of the Washington Office and two assistants work closely with the departments and agencies of the executive branch.

Two legislative attorneys supervised by the deputy director research major federal legislation affecting health; attend hearings; monitor the *Congressional Record* and the *Federal Register;* work closely with the Division's Legislative Department back in Chicago; tough bases frequently with the lobbyists; and help staff all meetings of the AMA's Council on Legislation.

A four-man Communications Department deals with media, covers the Washington scene for *AM News* and *JAMA,* helps Congressional staffs with research or speech material, etc.

Supporting all of this broad activity is the library, which serves staff, the general public, Congress and the Federal agencies.

So much for the administrative unit: how does it work to reflect AMA policy?

First, the AMA's legislative objectives are set by its House of Delegates, usually in broad policy guidelines. These guide the AMA's Council on Legislation when the time comes for it to review the many and varied issues developing in government.

The Council then recommends to the Board of Trustees that legislation be proposed, supported,

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This article was written by staff members of the AMA.

amended or opposed. Once the Board has acted, its decisions are sent to the Public Affairs Division of appropriate action in Chicago and Washington.

It is in this way that practicing physicians' viewpoints and supporting arguments are made known to the legislative and executive branches of government.

By and large, this method has proved effective. Some AMA viewpoints are indeed rejected. But many are accepted; and many more help shape compromise positions.

The Congress usually welcomes AMA viewpoints because it recognizes that the public cannot be well served unless all portions of a question are carefully weighed. Thus, such independent forces as organized medicine contribute to the public weal by studying and questioning what government does and does not do.

In summation, the AMA-Washington Office is an important component of a complex mechanism designed to convey the individual American physician's viewpoint to the Federal Government.

A Summary of AMA, Medical and Health News

1977-78 AMA officers installed or elected at the Annual Convention in San Francisco include John H. Budd, MD, Cleveland, president; Tom E. Nesbitt, MD, Nashville, president-elect; William Y. Rial, MD, Swarthmore, Pa., speaker of the House of Delegates; Harrison L. Rogers Jr., MD, Atlanta, vice speaker. Reelected to the Board of Trustees were Daniel T. Cloud, MD, Phoenix, and Hoyt D. Gardner, MD, Louisville. Elected to the Board for three-year terms were H. Thomas Ballantine Jr., MD, Boston, and George H. Mills, MD, Honolulu. Charles Max Cole, MD, Dallas, was elected to serve an unexpired term. Robert B. Hunter, MD, Sedro Woolley, Wash., was elected chairman of the Board; Frank J. Jirka Jr., MD, Berwyn, Ill., was named vice chairman; and Dr. Cloud was elected AMA secretary-treasurer and secretary of the Board.

AMA House of Delegates approved a proposal to discontinue the scientific portion of June conventions (after the 1978 Annual Convention), thus shifting resources to permit expansion of the Winter Scientific Meeting and the Regional Scientific Programs. The proposal was based on research showing physician continuing education preferences by time, season, location and format. The action included delegation to the Board of Trustees of the selection of sites for House meetings, a change that will require a vote to amend the Constitution and Bylaws at the 1977 Interim Meeting.

The House of Delegates, at the Annual Convention, reaffirmed support of the AMA's comprehensive health care insurance proposal as introduced in Congress, and also affirmed its "total opposition to the nationalization of the medical profession." The House asked each state association to submit recommendations on the national health insurance issue within 60 days and asked the Board to report at the 1977 Interim Meeting on whether sections of the AMA proposal could be interpreted as permitting the nationalization of private practice or mandating the placing of the major burden of health insurance on any one class of society.

The Board of Trustees voted to sponsor a fourth Quality of Life Congress in the spring of 1978. In 1972, 73 and 74 the AMA sponsored congresses, with the cooperation of more than 50 other national organizations, on "Improving the Quality of Life in the Early Years, the Middle Years, and the Later Years." The fourth congress will be "Improving the Quality of Life of the Family."

Reference kits containing articles on malpractice, national health insurance and national health planning are being prepared by the AMA for use as background information by high school student debate teams. Each state forensic league will choose one of the three topics for debate by local high schools in the 1977-78 school year. The National University Extension Assn. chose the three topics.

New from AMA are Continuing Medical Education Video Clinics, to be marketed by the Association this fall. Each clinic—aimed at physician use in the hospital or home setting—includes a program on color videotape (for use with a U-Matic ¾″ videotape player), syllabus, tests, and instructions. Applicable for hour-for-hour Category 1 credit, the CME clinics will be available to hospitals and individual physicians for a nominal fee.

Utilization Review

While there seems to be no limit to the public's ability to use health services, there is certainly a limit to its ability and desire to pay for them. The increased utilization of health services in past years has added to the inflation of health care costs, and all third party payers—the federal and state government, Connecticut Blue Cross and commercial insurers—have helped complicate the problem, if only by responding to the public's appetite for increasingly broad coverage. The public has come to perceive health care as a right, and this concept has enhanced expectations and encouraged greater and perhaps less prudent utilization of care.

The question of proper utilization of care was addressed by the Medicare legislation in 1966, which required utilization review to determine the medical necessity of skilled health care for beneficiaries of the government program. Having developed and worked with a review program as a Medicare intermediary, Connecticut Blue Cross became interested in applying a similar function to Blue Cross claims. In 1969 we added to our Member Hospital Contract a requirement that all Member Hospitals have or develop a viable utilization review program.

As an outgrowth of our interest, we have encouraged the development of utilization review programs throughout the state. In 1971 we worked with the Hartford County Medical Association in creating the Hartford County Health Care Plan, a foundation for medical care. The Hartford County Health Care Plan developed the Hartford County Professional Standards Review Organization (PSRO) in 1973, and in that same year Connecticut Blue Cross asked the Insurance Department for permission to amend our contracts to permit utilization review. The request was for a utilization review process that would hold the patient harmless (not liable) and would not result in a reduction of benefits. At that time the Department felt the initiative should come from doctors and hospitals rather than insurers, and the request was denied.

The uncertainty of who should do what has helped confuse the utilization review efforts. Doctors and hospitals are accustomed to operating independently, and although peer review has always had their support, they have not welcomed "outside" judgments and interference. However, while we cannot exercise any controls which hospitals feel are not appropriate, we have always felt a responsibility to represent our subscribers' interests in our reimbursement contract negotiations with hospitals.

We continued to work with developing PSROs, and on October 1, 1974 renewed our Member Hospital Contract with a strengthened utilization review provision in line with the federal PSRO system. Now that Connecticut Blue Cross has taken initiatives previously considered inappropriate, we are making a more important contribution through reimbursement contract requirements.

The most critical question for the government and third party payers is whether full scale utilization review will save more money than it will cost. While the objectives of utilization review include the assurance of quality care, the principle appeal to purchasers and regulators of health care has been that it may save money. As yet, there has been no thorough evaluation of its cost effectiveness.

On October 1, 1976, Connecticut Blue Cross, in conjunction with four hospitals, the Hartford County Health Care Plan, PSRO, and the Connecticut Hospital Association began a pilot program to make that evaluation. The four hospitals involved in the trial program are New Britain General, Park City in Bridgeport, St. Mary's in Waterbury and Rockville General. Admissions of Blue Cross members to any one of these hospitals were reviewed to determine the necessity and quality of services provided and the appropriate level of care. The review process is based on the concurrent utilization review concept of the PSRO, designed to permit practicing physicians to participate in the ongoing review and evaluation of health care services covered under the Medicare, Medicaid, and Maternal and Child Health Programs.

The hospitals and the PSROs performed the following reviews during the six-month study:

Admission Review—Upon admission to the hospital each Blue Cross patient's case was reviewed to determine if the admission was necessary and the level of care required.

Continued Stay Review—Once an admission was approved, each patient was assigned a continued stay review date—an approximate discharge date based on the diagnosis for which treatment was received.

Decisions based on the project were not financially binding. If the review indicated that further hospitali-

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This article was written by Connecticut Blue Cross.

zation was not necessary, based on admission review or continued stay review findings, Blue Cross payment of the patient's claim was not withheld. However, if continued hospitalization was not necessary but some other level of care was indicated. a health service coordinator and the attending physician discussed with the patient the types of continued care available in other than a hospital setting.

Through the pilot program, Connecticut Blue Cross hopes to develop some knowledge of the cost effectiveness of the utilization process by examining the costs involved to the hospitals, PSROs, Blue Cross, and the subscribers, and to determine how each of these groups will benefit from the program.

There is considerable expense involved in administration of the program and payment for doctors' and hospitals' efforts. Should expenses prove to be far greater than savings, some changes in direction may be necessary. Although there is much merit in the concern for quality assurance, the cost of this care is an important consideration

By making the first serious attempt to determine the cost-benefit relationship, we are making a critical contribution to the cost control efforts. If the program proves to be cost effective, we will also have provided an opportunity for the hospitals, PSROs and Connecticut Blue Cross to demonstrate joint ability to operate and monitor a concurrent review program. In addition, we will have collected data which will help make future decisions concerning utilization review in all hospitals for all our members.

An evaluation of the pilot program is expected to be completed by September and an analysis of the project will be shared with you.

In recent testimony before a subcommittee of the House Ways and Means Committee, Neil Hollander, Vice President of the Blue Cross Association, outlined ways to improve the PSRO program. He said: "We believe the basic objectives of PSROs were confused almost as soon as the legislation was passed. We understood the intent of Congress to be establishment of a professionally acceptable means of controlling cost . . . through controlling utilization in the Medicare and Medicaid Programs. Now there seems to be a primary emphasis on quality, although the law clearly emphasizes cost control . . . while quality cannot be ignored, nor should it be, the program cannot have two equally important, potentially confusing goals."

Hollander summarized the changes that would improve the effectiveness of the program:

—The Bureau of Quality Assurance and Bureau of Health Insurance should cooperate with each other to develop policy more promptly. "We hope the recent creation of a health care financing administration will facilitate this," he said.

—The PSRO Program should be integrated into Medicare, with PSROs accepting Medicare policy on basic program operations, including coverage limitations. And reimbursement for PSRO-delegated or non-delegated hospital review should follow current reimbursement practices for other hospital services.

—A comprehensive evaluation of PSRO effectiveness should be conducted.

—PSROs should be encouraged, and even required, to develop profile analysis and focused concurrent review as a more potentially cost-effective review system.

—PSROs should experiment with greater cooperation between themselves and intermediaries in such areas as data support and profile analysis, concurrent review or fourth-level retrospective review.

Month in Washington

"The Federal Trade Commission is not a health or medical agency," FTC Chairman Michael Pertschuk has told a conference on competition in health care.

The business of the FTC is business, and we recognize, along with most Americans, that the delivery of health care is business, an industry of vast proportions and vital effect. Health care has become our business."

Mr. Pertschuk opened a two day conference, sponsored by the FTC which rarely holds such events, with a reference to the AMA.

"The FTC is now in the process of receiving documents subpoenaed from the AMA, and certain state and local medical societies. Our intention is to learn how self-regulation—professional control over voluntary and state agencies—really works. There is reasonable doubt that the medical profession, by itself or through friendly state governments is completely open to innovation, competition, quality control, or consumer choice."

Determined to curb rising hospital costs, the Congress has opened hearings on legislation proposed by Sen. Herman Talmadge (D-Ga.) that would institute a prospective reimbursement plan for the nation's hospitals. The Talmadge bill is considered a rival of the Administration's proposal to place a nine percent "cap" on hospital revenues.

The Administration has told the Senate Finance Subcommittee on Health, headed by Talmadge, that it likes some provisions of the Talmadge bill but that it is imperative that the controversial "cap" proposal be enacted, perhaps with features of the Talmadge bill included.

Most health provider groups, including the American Medical Association, found the Talmadge plan much more palatable than the Administration's bill, though they took issue with some of the Talmadge provisions.

Appearing for the AMA was Edgar T. Beddingfield, Jr., M.D., Chairman of the AMA Council on Legislation. Dr. Beddingfield said several provisions of the bill on physician reimbursement "could have a detrimental effect on the availability and quality of care." The proposed creation of a special class of practitioners, designated as "participating physicians", though somewhat modified this year, would still cover those who agreed to accept all Medicare reimbursement for their services on the basis of assignments. Inducements such as simplified claims procedures would be offered to encourage physicians to become "participating physicians."

Dr. Beddingfield said the proposal "does not reach the issue of why assignments are not widely accepted. The major deterrent to assignments is the insufficient reimbursement rate under Medicare and this proposal does not correct this problem."

Also criticized was the proposed Talmadge criteria for determining Medicare reasonable charges for physicians' services which would allow the government to determine statewide prevailing charge levels for each state, based on 50 percent of the charges made for similar services in the state. Prevailing charge levels in a locality would continue to be subject to an economic index, but any increase in the prevailing charge level could not exceed the statewide prevailing charge by more than one-third.

"The real effect of this change," Dr. Beddingfield said, "would be a further restriction on reimbursement levels in the state achieved primarily through a reduction in the already limited increases which would otherwise be allowed under the Medicare Economic Index."

The Administration has damned the Talmadge bill with faint praise. Recognizing that Talmadge's measure poses a serious threat to the Administration's controversial Hospital Cost Containment Plan, HEW Secretary Califano devoted a great deal of his testimony during the hearings to plugging the Administration's approach. He had praise for some facets of the Talmadge bill, expressing the hope the two approaches could be melded, but his criticism of the key prospective hospital reimbursement provision was so strong that a marriage may be difficult.

Califano said the Talmadge reimbursement plan suffers from lack of available data and methodology to put into effect. "Further, it only covers about 35-40 percent (Medicare-Medicaid) of present hospital costs, and will not, in our judgment, effectively control costs in the immediate future," said Califano.

The Talmadge plan could cost up to $50 million more next fiscal year, in contrast with the estimated national savings of $1.9 billion for the

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Prepared by the Washington, D.C. Office of the American Medical Association.

Administration's Hospital Cost Containment Act, according to the Cabinet Officer.

"We feel strongly that the problem of rising costs is of such disastrous proportions that we simply cannot wait for a perfect solution before acting," Califano testified.

The Administration supports the concept of prospective reimbursement of hospitals, he said, but "holding down Medicare and Medicaid payments alone could simply encourage hospitals to refuse these patients, to provide such patients with second-class care, or to transfer their costs to other payors."

In other testimony, John Alexander McMahon, President of the American Hospital Association, said the Talmadge bill overall "reflects an understanding and consideration" of the complexities of the health care delivery system. However, McMahon said the AHA objects to some provisions. He singled out the proposed uniform percentage limits on increases in revenues which "would exert the heaviest pressures where they are least appropriate—on the most efficient hospitals."

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Physician fees eventually may need cost controls, HEW Secretary Califano has told Congress.

"Eventually the health care system will have to deal with physician fees," the Secretary told the Senate Finance Subcommittee on Health.

Califano said he and President Carter considered controls on physician fees as well as hospitals earlier this year but rejected them "because we just don't know yet how to deal with that problem."

Califano also opposed a provision in the Medicare-Medicaid reform bill by Subcommittee Chairman Talmadge which would lift the legal requirement for publishing the names and income of physicians and other Medicare providers. The HEW official said "sunshine is the greatest disinfectant," referring to the so-called Sunshine, or Freedom of Information Law.

Talmadge said he would withdraw the provision "if you (Califano) guarantee the accuracy" of future reports.

Califano noted that he apologized to the AMA for the high rate of error in this year's report and that a revised and corrected list would be published.

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The Medicare-Medicaid anti-fraud and abuse legislation is winding through a complicated pathway in two powerful house committees—Ways and Means and Commerce. Both committees have jurisdiction over the bill before it reaches the floor.

The Ways and Means Committee is ready to report a bill and the full Commerce Committee is preparing to act also. One major difference between the committees, not yet resolved, is the degree of access federal investigators will have to patient records for the purposes of fraud and abuse investigations and epidemiological surveys.

The Senate will not take up the measure until the House completes its work on the bill.

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In an effort to boost the new Office of Inspector General, HEW Secretary Califano has charged that fraud and abuse by physicians and pharmacists in the Medicaid program "is a serious problem."

He said "this conclusion emerges from an innovative, systematic two-month-old investigative effort being conducted by HEW's new Inspector General, working in cooperation with the new Health Care Financing Administration."

Califano said that through computers programmed to flag suspicious cases in state Medicaid files, 172 cases have been identified involving "what appear to be the worst physician and pharmacist offenders against the Medicaid system." He did not release any names.

The 172 cases warrant further investigation and may lead to prosecution, according to the Secretary. They are spread over 45 states and the District of Columbia. Ninety-two cases involve physicians, and 80 deal with pharmacists.

The new computerized system has allowed HEW to screen 252 million transactions over a twelve-month period involving 231,000 physicians (108 million claims) and 44,000 pharmacies (144 million claims).

The goal of the new investigation—which is called "Project Integrity"—is to identify 500 cases of apparently flagrant physician and pharmacist fraud or abuse in Medicaid.

Physicians and pharmacies were chosen as initial targets of the new computer investigation "because computer programs were already available for application of the innovative techniques."

Physicians and pharmacies receive about 16 percent of Medicaid expenditures (which total $18 billion this year, including a $7.8 billion state share). Estimates of fraud and abuse in Medicaid are estimated at between $800 and $900 million annually, said Califano.

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Renewed prospects of Administration activity next year on national health insurance has spurred Congressional interest in the issue. At last count 22 lawmakers from both parties have co-sponsored the AMA's comprehensive health insurance plan for all, bringing to 30 the number of Senators and Representatives who have backed the proposal officially.

What If the Surgeon Doesn't Want Counts?

William A. Regan, J.D.

Q When a surgeon says: "No count necessary," can operating room nurses document this in writing and thereby be legally correct in the event that a sponge, instrument, or needle is not retrieved in surgery?

A Yes, the procedure described is legally correct (written documentation) and the pretrial statement or trial testimony of count nurses that they conformed to the "no count" order of the operating surgeon would be legally sufficient as a defense argument to demonstrate their disassociation with any liability arising out of that surgical order.

Q Two surgeons at my hospital have signed statements that they do not desire instrument counts on their cases. The hospital has a policy requiring such counts. Is the hospital (and its salaried operating room nursing personnel) protected by the signed statements of these two surgeons in the event that an instrument is left in a patient's body following surgery?

A If the medical administration and general administration have accepted the statements of these two surgeons indicating that they do not desire instrument counts, the operating room nurses should have no further concerns about their personal professional liability. However, the hospital and the two surgeons share a continuing responsibility for these exceptions to the hospital's implied instrument count policy.

Q When a surgeon is closing a patient quickly and the nurses doing counts cannot adequately complete a total count, do the nurses have a legal right to insist that the surgeon slow down to permit the nurses to properly finish their counting process?

A The answer depends on the reasons for the surgeon's speed in closing his patient. When speed in closing his patient. When speed in closing is dictated by the patient's respiratory distress or deteriorating physical condition, the surgeon's decision overrides all other considerations. However, when speed is simply the technique of a particular surgeon and when it is excessive to the point of interfering with the separate professional responsibilities of the operating room nurses, the matter should be resolved between the OR nursing supervisor and the errant physician. If that fails to correct the problem, the OR supervisor should take the matter up with the physician in charge of the department or his designee for this purpose.

Q Who is *directly* responsible for establishing a hospital policy on instrument and needle counts?

A The director of surgery or the OR committee ordinarily headed by the physician in charge of surgery is responsible for making a policy determination as to whether or not there will be mandatory instrument and needle counts during surgery. This is a responsibility appropriately delegated to it by the executive committee of the medical staff. Such a policy should conform to the AORN standards for instrument and needle counts. Once such a policy has been established, the procedures designed to insure the implementation of that policy should be formulated by the department of surgery and the nursing service department of the hospital.

Q May an OR technician have any legal responsibility for sponge, needle, and/or instrument counts?

A While a technician *can* be legally responsible, appropriate and consistent with AORN standards, the technician should only serve as an assistant to the registered nurse in sponge, needle, and instrument counts.

Q If the sponge count is done by one person, usually a licensed practical nurse or OR technician, and the OR supervisor is aware of the AORN standards for sponge counts, what is the liability of the OR supervisor?

A The OR supervisor, noting the personnel deficiency in sponge counting, should immediately make arrangements for coverage, meeting the AORN standards (requiring that counts be done by two people—scrub and circulating nurses—one being an RN). When she is prevented from doing so by budget constraints or administrative policy, she should insist upon a waiver of budget limits and an exception to administrative policy to get adequate staffing to conform to AORN standards. Courts throughout this nation recognize the role of AORN in setting qualitative and quantitative standards. Hospitals everywhere would be well advised to conform to AORN standards.

Q What is the responsibility of the OR supervisor in a hospital operating room suite where the ratio of OR technicians to RNs is 9:1?

A When an experienced OR supervisor is aware of any patient care situation in her department that is potentially dangerous to the health and safety of the patients who will use that facility, she should bring her concerns to the attention of those in her hospital who are in a position to rectify the potentially dangerous situation. Once she has done so and has documented that fact in a memo or in her personal log or in some other appropriate manner, it then becomes the duty of hospital management to rectify the situation and eliminate the danger.

WILLIAM A. REGAN, J.D. Managing partner, Regan, Carberry & Flynn, Providence, R.I.

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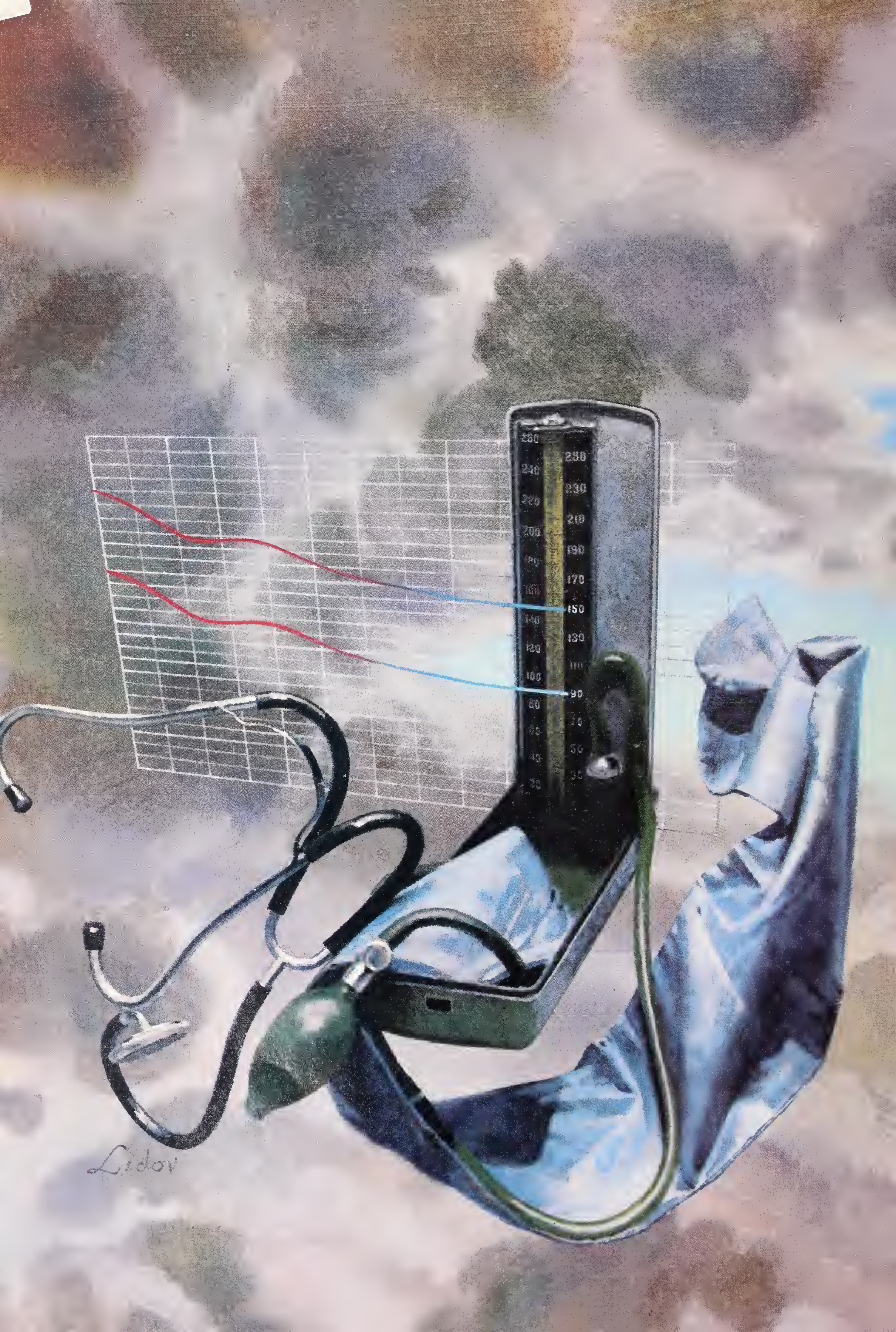
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When choosing a diuretic for day-in-day-out hypertension control with comfortable compliance...

The agent you choose in mild to moderate essential hypertension should offer (1) long-term effectiveness, (2) patient comfort and compliance.

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In one long-term study[1] Zaroxolyn brought moderately elevated (average 161/109 mm Hg) blood pressure down to the range of normotension—and held it there for a year or more.

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Zaroxolyn. For long-term control and comfortable compliance in mild to moderate hypertension.

Recommended initial dosage in mild to moderate essential hypertension–2½ to 5 mg once daily

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2½-mg, 5-mg and 10-mg tablets

once-daily antihypertensive diuretic

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary. **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. **Contraindications:** Anuria, hepatic coma or precoma; allergy or sensitivity to Zaroxolyn. Or, as a routine in otherwise healthy pregnant women. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur. Azotemia and hyperuricemia may be noted or precipitated. Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced. Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk. Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance. These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur in edematous patients in hot weather. **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth, hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg. Dosage adjustment may be necessary during the course of therapy **How Supplied:** Tablets, 2½, 5 and 10 mg.

References:

1 Dornfeld L, Kane R: Metolazone in essential hypertension. The long-term clinical efficacy of a new diuretic. *Curr Ther Res* **18:** 527-533, 1975.
2. Data on file, Medical Department, Pennwalt Prescription Products.

PENNWALT

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Pharmaceutical Division
Pennwalt Corporation
Rochester New York 14603

Reflections from the Dean's Office

Robert U. Massey, M.D.

Last month I said that I believed values or moral reasoning could be taught along with science and clinical medicine, and that until recently no one had denied that imparting the good, as well as the true, was one of the purposes of education.

I discussed my view with two colleagues, one of whom said that attempting to teach values could be dangerous, would raise the spector of absolutism, and stimulate exhausting debate.

"You couldn't tell a resident that he had performed a bad act because he had ordered a medication without questioning or examining the patient. You might say that what he had done was inappropriate or unwise, but you should avoid words like good and bad," my colleague insisted.

Some lines from C.S. Lewis came to mind: "We laugh at honor and are shocked to find traitors in our midst. We castrate and bid the geldings be fruitful."[1]

My second colleague argued that values should be taught only by example. He said that there was no longer a common morality and, philosophers to the contrary, there was no way to appeal logically to a basis for an ethical judgment without risking an absurdity or an embarrassment. He said that one simply had to feel whether something was right or wrong, and indicated a spot somewhere in the region of his epigastrium. "If you can't feel it in there you don't have it."

It always had seemed to me that formal systems of ethics had little effect on morality except perhaps in the long development of a culture. They were necessary because something had to be said about feelings and attitudes acquired by experience or teaching, and supported perhaps by a special sense or faculty located, as my friend suggested, somewhere below the diaphragm.

Some moral philosophers have postulated the existence of such a faculty, a kind of facilitating organ by which we make moral judgments. Without defining its nature, most of us have been content with the word conscience, which the dictionary describes as "a faculty, power, or principle enjoining good acts." Philosophers have spoken of *intuitism* or *cognitivism,* and Freud wrote of the *superego.* As a basis for formal ethics, however, this notion has fared badly: it is difficult to judge between the assertions of two individual consciences, and it is no use saying that everyone's conscience is, if carefully attended to, in agreement with all other consciences. Nevertheless, the concept is hard to shake. We are social animals and what we call good behavior may be that behavior which has enabled us to survive; our ethical sense (*ethos* meaning habit) may be inherited from our successful ancestors.

Most current ethical systems are more or less relativistic. Some relativists deny that ethical judgments are logically possible; others admit that right and wrong have a reality, but that we can not know it. Those who say that no moral assertions are valid may still fall back upon *conventionalism,* which is the "when in Rome" code, more often etiquette than ethics.

One seeks for a word or principle in this sea of words. Kant's categorical imperative seems to offer solidity, but even that gives way when stressed. "Act only on that maxim through which you can at the same time will that it should become a universal law." We have all heard someone say to a child, "What if everyone did that?" In Kant's experience a moral act is one done for the sake of duty.

Antoine de Saint Exupèry, after describing the ordeal of a pilot whose plane had gone down in the Andes, and who had walked half frozen without sleep for three days through the wind and snow, says simply: "Guillaumet's courage is in the main the product of his honesty. But even this is not his fundamental quality. His moral greatness consists in his sense of responsibility."[2]

Aristotle said that man's highest good is happiness, and that happiness is to be equated with virtue. For Osler the master word was work, and he agreed with Aristotle that virtue was formed by habit. For him revealed religion, tempered by nineteenth century biblical criticism, was still the source: "Learn to know your Bible, though not perhaps as your fathers did. In forming character and in shaping conduct, its touch has still its ancient power."[3]

Moral values, which are the basis of our laws and our behavior, must stand the test of reason although moral certainty may be unattainable in our age. Without private and public virtue, however defined, it is certain that a democratic society cannot endure and must in the end descend to tyranny.

REFERENCES

1. Lewis, CS: *The Abolition of Man,* The Macmillan Co, NY, 1947, p 16.
2. De Saint Exupery, Antoine: *Wind, Sand and Stars,* Harcourt, Brace & World, Inc, NY, 1967, p 43
3. Osler, William: *A Way of Life,* Chas C Thomas, Springfield, 1969, p 38

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EDITORIALS

The Apollo Fallacy

The successful landing of the Apollo spaceship on the moon was a supreme example of technologic prowess culminating in a specific, dramatic and finite event. The accomplishment was of such magnitude that it brought forth widespread belief that other areas of endeavor could be confronted with similar technology, concentration, and perseverance. Indeed, it became fashionable at that time to say: "If we could land on the moon, we could . . . . . ." ———— the reader substituting any variety of challenges ranging from scientific goals to the eradication of major social ills.

Unfortunately, success has not been as demonstrable in other areas. Further, problems of great concern, particularly those relating to our social order, seem the furthest from solution. Considerable sums of money and energy have been spent trying to solve these problems, although perhaps not with the same magnitude, unification of direction, or concerted force that characterized the Apollo program. This apparent lack of success has understandably resulted in a sense of frustration and skepticism concerning our ability to achieve solution. While "Old Glory" sits on the moon, cities decay, wars persist, and millions of people border on the brink of sustenance.

There are perhaps several reasons that may explain our inability at solution. First, there exists the very scope and magnitude of the problems. As complex an endeavor as the Apollo mission was, it merely represented one isolated facet of the larger endeavor of space exploration. On the other hand, eradication of poverty deals largely with more universal issues such as economics and distribution and not on discretely isolated entities. Thus, while single facets of huge social problems may be dealt with successfully, the impact of each can never approach that of an Apollo venture.

A second explanation concerns that of solutions producing new problems. Despite the new horizons revealed by a moon landing, and the new questions and challenges it brought forth, we, nonetheless, tend to dwell on the magnitude of that accomplishment as a feat unto itself. Our social ills do not afford us that luxury. The imminent eradication of smallpox, a major triumph for humanity, only brings to light the additional suffering of peoples saved from a ravaging viral disease but destined to succumb to the afflictions of poverty and starvation. The conquest of cancer will focus our attention more on the geriatric years and the meaning of life in advancing age. When we attempt to solve a problem whose very nature will be altered by the consequences of our endeavors, we can never achieve a state of final solution—only a direction.

Thirdly, we often fail to appreciate that the state of knowledge in different endeavors may not necessarily evolve in a parallel manner. Overlapping technologies may, but do not have to exist. Levels of refinement can vary. Thus, there is no guarantee that the same computer sophistication in a space module guidance system that can be exploited for the diagnosis of malignant disease can also cure that cancer. The state of information for the cure of cancer may not yet be at that critical level. While fuel utilized for space endeavors could be channeled for the transport of food for needy populations, the economic and political technologies might not be at the level of development to assure this.

Finally, we, as individuals, tend to view our goals in a contemporary perspective. We can easily overlook the major advances to longevity made in eradicating infectious diseases as we presently search for the cures to aging and deposition disease. Widespread malnutrition of today prevents full appreciation of previous advances in the agricultural sciences that improved world supplies. Accomplishments such as the Apollo venture, however, are so isolated in the framework of their achievements that they have the luxury of eternal suspension in time. They will be held in the same awe as Columbus' discovery of the New World—never having to be accountable to the evolving state of human affairs.

Apollos contribute much to the human experience as sources of motivation, inspiration, and concentrated intensity of effort. Such endeavors, nonetheless, are not necessarily applicable as models in the pursuit of other goals. Expectations that "Apollo efforts" can be utilized for other challenges may lead to only varying degrees of success and frustration. The pursuit of all goals requires individual and rational approaches in the proper perspective of time and space.

Noel I. Robin, M.D.

Physician-in-Chief,
Department of Medicine, The Stamford Hospital
Stamford, CT; Associate Professor of Medicine,
New York Medical College.

Woman's Inhumanity

Governor Ella Grasso's "holier-than-thou" stand that she could not use our money to pay for abortions of women dependent on public funds is hypocritical.

In the face of a nationwide epidemic of one million teenage pregnancies, in the face of data that teenagers make inadequate parents in this society, what does our Governor propose to do to prevent unwanted children from becoming another generation of teenagers who are under-educated, under-nourished emotionally, deficient in impulse control and therefore prone to produce another such generation because they are unprepared, if not unwilling, to assume parental responsibilities?

The Governor—and the legislature—continue our inadequate and discriminatory tax policies so that there is not enough money for infant health care, for the schools, for day-care programs, for preventive measures, let alone remedial services for the chronically ill, as in the mental health field which is so largely a state responsibility.

This from the person who, ". . . as a woman believes she does not have the right to destroy any life." But governmental inaction and legislative indifference do destroy lives, when you consider ill health without adequate care, unwanted pregnancies and over-populated families where children are handicapped from the beginning, and this in one of the richest states in the most prosperous nation in the world.

As physicians know, abortion need be but an uncommon occurrence if people were adequately educated about sexual behavior, contraception and parental responsibilities. Skimping on funds for education and health care, not providing preventive services to ensure optimal physical and emotional health for everybody, is not being "for life" as health professionals define it.

Stephen Fleck, M.D.

NOTICES

Issues In Cardiology—1977

A Symposium for Physicians and Nurses sponsored by
American Heart Association
Fairfield County and South Central Connecticut Chapters
September 24, 1977

On Saturday, September 24, 1977, the Fairfield County and South Central Connecticut Chapters of the American Heart Association will sponsor a Symposium for Physicians and Nurses entitled, "Issues In Cardiology—1977." Located at the Sheraton-Park Plaza Hotel in New Haven, this one day Symposium will present as guest lecturers: Lawrence S. Cohen, M.D., Yale University School of Medicine; Joseph A. Kisslo, Jr., M.D., Duke University Medical Center; Arthur E. Baue, M.D., Yale University School of Medicine; Samuel D. Fox, III, M.D., Georgetown University Hospital; and Marvin Moser, M.D., White Plains Hospital.

Registration for the Symposium is $20.00 and will be limited to 250 persons. Advance registrations will close on Wednesday, September 14, 1977, and will be honored in the order received. For further information, contact the American Heart Association, 1184 Chapel Street, New Haven, Connecticut 06507.

Ear, Nose and Throat Symposium To Focus On Nervous System

Hospital of St. Raphael
September 24, 1977

A symposium on nervous system involvement in otolaryngologic conditions will be held at the Hospital of St. Raphael in New Haven, Saturday, September 24, from 8:30 a.m. to 3 p.m.

Topics to be covered include antibiotics, radiology, CAT scan, sinus disease, mastoiditis, facial nerve, vertigo, headache, CSF-leak and carcinoma.

Persons interested in further information about the symposium should contact Paul Taylor, Director of Community Services and Public Affairs, Hospital of St. Raphael, New Haven, CT 06511, or call 789-3507.

The Eighth Annual Peter Hervey Smith Lecture

Sharon Hospital
November 5, 1977

Dr. Clayton Rich, Vice President for Medical Affairs of Stanford University and Dean of the School of Medicine, will present the Eighth Annual Peter Hervey Smith Lecture at The Sharon Hospital, Sharon, Connecticut on Saturday, November 5, 1977 at 10:00 A.M. The title of his talk will be: "Three Trends in Medical Practice: Art, Science and Public Accountability".

FROM THE EXECUTIVE DIRECTOR'S OFFICE

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Assistant Executive Director
Public Affairs

William R. Richards, M.D.
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Josephine P. Lindquist
Associate Executive Director

Robert J. Brunell
Assistant Executive Director
Scientific Activities

Summary of Actions

Council Meeting

Thursday, July 7, 1977

I. Attendance

Present in addition to the Chairman, Dr. D.A. Grendon, and the Vice Chairman, Dr. G.W. Van Syckle, were: Drs. Friedberg, Freedman, Backhus, Johnson, Ragland, Jr., Spitz, Hess, Canzonetti, Bradley, Cramer, Fabro, McGarry, James, Mendillo, Krinsky, Sonnen, Whalen, E. Beck, R. Beck, Horrax, Anderson, Eslami, Parrella, Barrett and Middleton.

Also present were: Mrs. Lindquist, Mr. Brunell, Mr. Tomat (FCMA), Dr. Massey (UConn Medical School) and Dr. Richards.

Absent were: Drs. Kamens, Sadowski, Harkins, Jameson, Magram and Zlotsky.

II. Routine Business

Approval of Minutes

As published and distributed, and with several minor corrections noted, it was VOTED to approve the minutes of the meeting of June 8, 1977.

Life Memberships

It was VOTED to approve applications for Life Membership received from the following eligible Active Members:

Joseph J. Esposito, Bridgeport
Simon L. Goldfarb, Stamford
Joseph M. Lesko, Bridgeport
Heinz W. Markwald, New Hartford
Ralph L. Parker, Bridgeport
Frank A. Serena, Norwalk
Francis P.A. Williams, New Smyrna Beach, Fla.

Date of Next Meeting

The Chairman set the date of the next meeting for Wednesday, August 3, 1977.

III. Old, New and Special Business

Resignations, Appointments, Etc.

Committee on Public Health: It was VOTED to appoint John N. Gallivan, Wethersfield, as chairman of the Committee, replacing Leonard Parente, Hamden, resigned.

Final Report—Ambulatory Care Study

The Council members were joined by Frederick C. Weber, Jr., CACS Principal Investigator; James E.C. Walker, CACS Co-Principal Investigator; and Ms. Ruth Riedel, CACS Project Director, who had been invited to attend the meeting for the purpose of presenting and explaining the CACS Final Report (Chapter 10) and to respond to questions.

It was first VOTED to accept for filing: (a) Chapter 10 of the Final Report; (b) the minutes of the 6/6/77 meeting of the Committee on Statewide Medical Planning at which the Final Report had been reviewed in detail. The minutes made recommendations for actions to be taken by the Council.

Following a prolonged period (approximately 2 hours) of discussion, questions and answers, the Council took actions as follows:

(1) VOTED to forward the Final Report to HEW, accompanied by appropriate comments approved by the Council.

(2) VOTED to request the President to appoint an ad hoc committee of Council members to prepare the "appropriate comments" which will accompany the Final Report to HEW and to submit same to the Council for approval at the next (8/3/77) meeting. It was understood that the comments are to be based on the Council's discussion of the report at this (7/7/77) meeting.

(3) VOTED to table action on the recommendations made by the Committee on Statewide Medical Planning until the August Council meeting.

Reports—Delegate to MSNJ

It was VOTED to receive as information, and with commendation, a two-part report submitted by Sidney L. Cramer, Hartford, who attended the annual meeting of the Medical Society of New Jersey (Atlantic City, 5/14-17/77) as CSMS delegate. One report was on the proceedings of the MSNJ House of Delegates. The other was a summary of the remarks made by Dr. Cramer to the House of Delegates by invitation. His subject was the experience of the Connecticut Commission on Hospitals and Health Care on which he served for three years as a member.

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*INDICATIONS—Based on a review of this drug by the National Academy of Science-National Research Council and/or other information, FDA has classified the indication as follows:

"Possibly" effective: For long-term therapy of chronic angina pectoris. Prolonged therapy may reduce the frequency or eliminate anginal episodes, improve exercise tolerance, and reduce nitroglycerin requirements. The drug is not intended to abort the acute anginal attack.

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS—No specific contraindications are known.

PRECAUTIONS—Since excessive doses can produce peripheral vasodilation, the drug should be used cautiously in patients with hypotension.

ADVERSE REACTIONS—Adverse reactions are minimal and transient at recommended dosages. Instances of headache, dizziness, nausea, flushing, weakness or syncope, mild gastrointestinal distress and skin rash have been noted during therapy. Rare cases of what appeared to be an aggravation of angina pectoris have been reported, usually at the initiation of therapy. On those uncommon occasions when adverse reactions have been persistent or intolerable, withdrawal of medication has been followed promptly by cessation of undesirable symptoms.

DOSAGE AND ADMINISTRATION—The recommended dosage is 50 mg (2 tablets) three times a day, taken at least one hour before meals. In some cases higher doses may be necessary but a significantly increased incidence of side effects is associated with increased dosage. Clinical response may not be evident before the second or third month of continuous therapy.

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NOTICES

CANCER EVALUATION FOR THE MODERN PHYSICIAN

A SYMPOSIUM FOR THE PHYSICIAN

TUESDAY, SEPTEMBER 20, 1977
9:00 A.M. - 5:00 P.M.
MILFORD HOSPITAL AUDITORIUM
MILFORD, CT
AMERICAN CANCER SOCIETY

The Professional Education Committee of the American Cancer Society, New Haven Metro Unit has planned this program for physicians in the community. Speakers will present information regarding the use and value of some of our most valuable tools for evaluating cancer patients. At the conclusion of each talk time will be allowed for questions.

Registration for this program will be limited to fifty people. A registration fee of $10, which includes a light luncheon and refreshments, will be required in advance.

For further information regarding this symposium please contact the American Cancer Society by phoning 389-5324.

8:30 - 9:00 a.m. —Registration

9:00 a.m. —Introduction

John C. Marsh, M.D.
President, New Haven Metro Unit, American Cancer Society and Professor of Clinical Medicine, Yale University School of Medicine

9:15 a.m. —"Computerized Axial Tomography in the Evaluation of Patients with Cancer"

Stephen G. Rothman, M.D.
Assoc. Professor of Diagnostic Radiology, Yale University School of Medicine

10:00 a.m. —"Ultrasound in the Evaluation of Cancer Patients"

Kenneth J.W. Taylor, M.D., Ph.D.
Assoc. Professor of Diagnostic Radiology, Yale University School of Medicine

11:00 a.m. —"The Use of Nuclear Medicine in the Evaluation of Cancer"

Gerald Freedman, M.D.
Assoc. Clinical Professor of Diagnostic Radiology, Yale University School of Medicine; and Director of Radiology, Temple Medical Center

11:45 a.m. —"The Use of Mammography in Breast Cancer Diagnosis"

Dorothea R. Peck, M.D.
Assoc. Clinical Professor of Diagnostic Radiology, Yale University School of Medicine

1:30 p.m. —"The Role of Angiography in the Diagnosis and Management of Cancer Patients"

Shelby Galloway, M.D.
Attending Radiologist, Hospital of St. Raphael

2:15 p.m. —"The Use of Cytology in Cancer Detection"

Romeo A. Vidone, M.D.
Chairman, Dept. of Pathology, Hospital of St. Raphael; Assoc. Clinical Prof. of Pathology, Yale Univ. School of Medicine and Clinical Asst. Professor, U. Conn. School of Medicine

3:30 p.m. —"Looking at Malignancy—Endoscopy 1977"

Vincent A. DeLuca, Jr., M.D.
Chief of Medicine, The Griffin Hospital and Assoc. Clinical Prof. of Medicine, Yale University School of Medicine

4:15 p.m. —"Biological Tumor Markers—Role in Diagnosis and Follow-Up"

Leonard R. Farber, M.D.
Private Practice Oncologist and Asst. Clinical Prof. of Medicine, Yale University School of Medicine

Progress Report on FTC Complaint

It was VOTED to receive as information a 6/6/77 communication from Attorney Grant N. Nickerson (Wiggin and Dana) which reported on the current status of the CSMS-NHCMA defense against the complaint of the Federal Trade Commission (re "advertising", price fixing, restraint of trade, preventing competition, etc.) and made projections as to what the future course of events might be. Mr. Nickerson and Ms. Linda Randell, an associate, joined the Council to elaborate on the written progress report and to respond to questions. The hearing of the complaint, previously postponed from January and June, is now scheduled to take place in Washington, D.C., from early September on. It is anticipated that the hearing will run for a number of weeks—possibly as long as 3-4 months. While a significant portion of the defense will be common to AMA and CSMS-NHCMA, other significant portions will be the responsibility of AMA and CSMS-NHCMA separately. For this reason it is felt that CSMS-NHCMA legal counsel should be present "on the scene" in Washington for most, if not all, of the hearing proceedings. The question was raised again as to whether the AMA might be willing to share some of the costs attendant to legal coverage of the hearing, but the discussion of the question did not lead to the taking of any action thereon. In this general regard, the Executive Director recalled the decision of the CSMS House of Delegates (11/17/76) "to approve continuance of the Council's actions in defense of the Society and NHCMA and the funding thereof at least until a Commission hearing on the complaint has been held and a ruling handed down (by the Administrative Law Judge).

Nominations—Commission on Hospitals and Health Care

It was VOTED to request the President, Isadore H. Friedberg, to select and submit to the Governor the names of at least three physician (CSMS members) who are qualified for appointment (of one) to membership on the subject Commission. The applicable statutes, amended by the 1977 General Assembly, require that such nominees be Connecticut-licensed physicians "who are currently engaged in non-hospital, clinically based practice". Further amendment of the statutes provides that, on or before 7/1/77, the Governor shall appoint such a physician to replace the CSMS incumbent on the Commission (David A. Grendon, Sharon) for the balance of the latter's five-year term (1976-81). Some doubt was expressed that the Society's nominating privilege for regular appointments will apply in this one-time replacement situation, but the President was requested to select and submit at least three qualified nominees in any event.

N.B.: *The foregoing is a summary of the proceedings and actions of the Council on July 7, 1977. Detailed minutes of the meetings are on file at 160 St. Ronan Street, New Haven, for perusal by any interested member of the Society.*

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ANNUAL REPORTS

OF THE CONNECTICUT STATE MEDICAL SOCIETY

1976-1977 (concluded)

Judicial Committee

Charles E. Jacobson, Jr., Chairman

Number of Members: 12
Number of Meetings: 2
Average Attendance: 8

Summary of Activities: The Judicial Committee met on 2 occasions since the last Annual Meeting of the Society, in 1976—October 25, 1976, and, January 18, 1977. A third meeting is scheduled for March 14, 1977.

During our two meetings considerable time was devoted to a discussion of physicians records and the following conclusions were reached: (Consultants included the AMA; attorneys at law, Cooney, Scully, and Dowling)

1. The doctor owns the patient's record.

2. The patient has no right to read the record in the absence of a legal proceeding and an order of the court. Unlike a hospital record, where the statutes of the State of Connecticut give permission to a patient who has been discharged to examine his record, there is no equivalent statute in respect to examination of a physician's record by a patient. Thus, short of a legal proceeding, the patient has no right to read or examine his record.

3. According to the case of in re: Culbertson's Will, 292 NYS2d 806 (1968) records taken by a doctor in the examination and treatment of a patient are the property of the doctor, but they must be made available to succeeding physicians of the patient upon his (succeeding physician) request.

The questions raised by Dr. Samuel Climo's letter, dated December 26, 1975, are listed below and our conclusions summarized as follows:

1. Upon the death of a doctor to whom does the doctor's medical records belong?

The records belong to the deceased physician's "Estate", and presumably are in the control of the Executor of the Estate.

2. Do all of the records or only part of the records belong to the patient, or to the patient's newly acquired physician, or to his successor in office?

(a) The essence of the records or that information deemed vitally necessary to the subsequent proper care of the patient constitutes the record that "belongs" to the patient.

(b) The patient's records can, with the patient's concurrence, be forwarded to the physician of the patient's choice. Either a copy of the original or a summary of the essential information should suffice.

3. Should the medical records of the infants and children be treated differently than the adults records?

Probably the records should all be treated alike. It is recognized, however, that the Statute of Limitations does vary from state to state.

4. What are the present requirements for the preservation of a physician's medical records, a hospital's medical records, and a laboratory's medical records? (in-patient and out-patient records)

(a) A reasonable period of time is considered adequate, and this is usually considered to mean seven years.

(b) Hospital records must be kept for twenty-five years, including laboratory reports, and hospital out-patient laboratory reports, seven years.

5. How can a deceased or retired doctor preserve and protect his medical records for possible defensive action in malpractice or maloccurrence litigation?

Discreet notes and accurate records are the only safeguards.

6. Does the Doctor's Estate have the right to destroy any or all of the patients records if they deemed so desirable?

No, they should be preserved for a "reasonable" period of time, usually seven years.

7. Upon a doctor's death, or retirement, what notice must be made to his former patients regarding the availability of their medical records?

Notice of the doctor's death and of the availability of the patients records should be sent to all of the patients on the doctor's "active list", or "billing list," and due notice should be published in the local media.

8. If any cost is incurred in making the records available, who should incur this cost; the doctor, or his estate, or the patients or persons seeking the medical records?

Costs incurred in making the medical records available should be incurred by the patients concerned.

9. How long does an office keep the medical records of deceased patients?

Preserving all patients records, living and deceased, should probably be handled in a uniform manner, and kept for a minimum of seven years.

The Committee considered the question of confidentiality of adoption records; adopted unanimously the following recommendations of Dr. Y. Edward Hsia, Associate Professor of Human Genetics and Pediatrics at Yale Medical School.

1. Adoption records should include the identity of the natural mother (and father, if known) together with all potentially relevant medical information.
2. The adoption records should be safeguarded, perhaps by the Court, and subject to release only when the Court decides, via Judicial process, that the application for information is reasonable and justified.
3. Any immediately relevant information should be shared directly with the adoptive parents who would be assuming responsibility for the health care of their adopted child.
4. Adopted children should have access to any and all such information as may be necessary for their future health and well being, granting that occasionally there are cogent psychological and ethical reasons for preserving the strict confidentiality of such information.

The problem of the medical care of the aged has had the attention of this Committee for the past several years and a general statement and guidelines are to be finalized at our March 14, 1977, Meeting.

Dr. Johnson informed the Judicial Committee that Dr. Moorad had resigned from the Hartford County Medical Association, on April 24, 1975, and was, therefore, no longer a member of either this County or the State Medical Association. Prior to this, Dr. Moorad's appeal to the Judicial Committee of the Connecticut State Medical Society and the A.M.A., was sustained; apparently he elected to resign rather than face a re-hearing of the charges before the Hartford County Medical Association.

Report of Delegates to AMA Meeting, Philadelphia

12-5-76—12-8-76

J. Alfred Fabro, Chairman of Connecticut Delegation

This convention, though busy and frenetic as usual, lacked the luster and excitement stimulated by controversial resolutions. Some zest and interest, however, were supplied by a concerted and heated opposition to AMA's Medicredit bill.

Since most physicians, unfortunately, have never attended a business meeting of the AMA, let me give a brief description of such a meeting. The House of Delegates officially convenes on a Sunday afternoon and usually runs into Thursday. The preceding Saturday, however, is filled with interesting and informative meetings. There is always a meeting designed for presidents of state societies; Aetna is now conducting a meeting of the nine states who share in the "Connecticut" Aetna Plan. The Council on Medical Education sponsored an interesting informative meeting about its function and the problems in medical education. There were others equally interesting—more than one can assimilate.

The lay press makes much of the fact that the scientific program at such AMA meetings is attracting a smaller attendance. We physicians, however, understand that specialty organizations, hospitals and universities are increasingly participating in CME. However, the AMA is now sponsoring regional meetings in CME. In fact, it is sponsoring such a meeting to be held in Hartford September 10-11.

The House of Delegates acts on about 50 reports from various committees of the Association and from the Board of Trustees, and minimally about 100 resolutions—sometimes as many as 175 or so. All resolutions must be introduced by a delegate.

Though members of the AMA at county and state level do not realize it, each may, through the normal process of county to our state House of Delegates, submit resolutions for consideration at the AMA or through their state delegates. The issues must be of more than local or state interest; the AMA is concerned with national issues.

Plenary sessions of the House of Delegates are conducted by the elected Speaker and Vice-Speaker. They appoint members to the reference committees of which there are usually eight or nine, each made up of five members, none from the Board of Trustees. All reports and resolutions are distributed among these committees by the Speaker; each is assigned a general subject.

Reference Committees: Hearings before reference committees begin on Monday morning and usually are completed by the afternoon. Some run into the next day, especially if subjects are controversial. The hearings are open—to all physicians (including non-members of the AMA), to the lay public and to the press. Any physician may testify; even lay people may speak, with permission from the chairman. Hearings are usually unlimited as to time. When completed, a reference committee retires into executive session to write its report for the House, assisted by a member of the Staff who usually is a lawyer. This may take all night, and the report is immediately mimeographed and distributed to each delegate and alternate in time for study and discussion for the plenary sessions of the House of Delegates which begin on Tuesday morning. At these meetings, each chairman gives his report, again open to discussion and a vote. Policy for the American Medical Association is established by the House of Delegates, not by its Board of Trustees.

New England Delegation: For some years now the New England Delegation has met as an unofficial coalition. The delegates, plus officers of each state society, meet a couple of months before each AMA meeting, usually in Boston, to discuss issues and possible resolutions. They are permitted to sit as a group in the House of Delegates. They do not, however, vote as a unit, unless they agree about it, which is unusual.

At AMA meetings, they meet at breakfast and lunch at which time they discuss resolutions and reports. The Delegation elects a chairman to conduct the meetings and to handle the little organizational business there is. We are trying, with some success, to increase cooperation among state delegations in the entire Northeast, including at least New York, New Jersey, and Pennsylvania, to increase our representation at the AMA level. Though election of AMA officers and members to important committees is by closed vote and democratic, we simply do not have the votes to get what we think is our fair share of representation. We have learned that in most important issues the Northeast represents a consensus arrived at without conscious effort or discussion—Medicredit, for example.

Medicredit: The most important and controversial issue debated by the House was the report by the Board of Trustees on "Medicredit," the AMA's Comprehensive Health Insurance Plan (HR 6222).

Though opposition to this bill has been sporadic during the last few years, there was a surprising concerted assault by several states, led by Louisiana, not only on the AMA bill but on any national insurance bill. It was a surprising unanimous endorsement on the floor of the House of Delegates by the Texas delegation that spelled adoption of the recommendation that the bill be presented to the 95th Congress. The final vote was 181 over 57.

The argument of the Board of Trustees was that the AMA should have its own bill to provide a basis for negotiation and compromise during discussion and formulation of any national health insurance bill. The AMA had been told by its numerous congressional sponsors that withdrawal of an AMA bill would be an embarrassment to Medicredit's numerous congressional sponsors.

Connecticut Resolutions: CSMS, New Haven County, and the FTC. Our House of Delegates introduced a resolution asking that the AMA assume the entire cost for the defense of CSMS and the New Haven County Medical Association against the complaint of the Federal Trade Commission regarding implementation of the "Principles of Medical Ethics." Testimony brought out that other medical societies are facing similar lawsuits but are assuming full financial responsibility themselves. Also, the AMA is providing as much legal assistance as possible, including legal research, at no cost to CSMS. It also is willing to assume as much of the burden at the national level as possible. Our request, though refused, was sympathetically received.

Continuing Medical Education Newsletter. In response to our resolution at the previous meeting asking for resumption of publication of the AMA excellent newsletter, "Continuing Medical Education," the Board of Trustees stated that this will probably be resumed as soon as the financial affairs of the AMA are on a sound footing.

AM News. Connecticut introduced a resolution at the previous meeting requesting that a copy of *AM News,* the issue previous to and subsequent to the Philadelphia meeting, be sent to all physicians, including non-members of the AMA. This was carried out. Cost—$25,000. (The delegation will follow this up with a resolution at the coming meeting directed to the problem: How to get news about and from the AMA to physicians who are state society members but non-AMA members? About 50% of CSMS members are not AMA members. Where and how do they get information about and from the AMA?)

AMA, State Societies and the JCAH Guidelines on Due Process: The Connecticut delegation had asked that the AMA request all component state societies, with their state hospital associations, to conduct a continuing survey of the bylaws of hospitals in their respective states to insure that each complies with the spirit if not the letter of provisions for due process regarding physicians' privileges as outlined in the 1971 Guidelines of the Joint Commission on Accreditation of Hospitals. The Record of Trustees reported that state society responsibility is neither practical nor necessary. But after testimony, the reference committee amended, adopted by the House, that "The AMA and the state medical societies have a responsibility to encourage and to assist in the development of medical bylaws (of hospitals) that assure 'due process' for physicians."

The thrust of this resolution is not only to give physicians fair hearings in hospitals where their privileges, honor and reputation are concerned, but also to minimize and even eliminate the necessity for physicians to resort to the courts to insure that their hospitals in fact give them fair hearings.

Due Process in JCAH Guidelines. Though provisions on due process in the 1971 Guidelines of the JCAH were at that time a great improvement on the previous Guidelines, one must be a Philadelphia lawyer to use them in practice, especially in the smaller community hospitals. Testimony revealed that the JCAH is presently revising these provisions, and are sending rough drafts to each state medical association for their perusal and suggestions. They will be improved, or at least, simplified. The actual formulation of the 1971 Guidelines was written by a committee of six lawyers.

Ethics in the Treatment of the "Hopeless Case." The intent of our resolution (June 1976) was for the AMA to lay down principles and guidelines for physicians in the treatment of such cases epitomized by Karen Ann Quinlan. Impetus for this was in part because the physician involved in her care had stated that there were no guidelines in the profession to help them make their decision. As far as the AMA was concerned, they were correct. Nothing at the AMA level specifically helps the physician as to when to turn off the machine in the patient who is not "dead". The Judicial Council report recommended reaffirmation of the Association's existing policy statement, leaving it up to the treating physician that he was not compelled to give "extra-ordinary" care in "terminal" cases where death is "imminent." This, with consultation and permission of the family.

Testimony reflected dissatisfaction with this policy, and the reference committee so reported to the House which referred the problem back to the Judicial Council for a report at this session.

The Judicial Council has not given any definition for the crucial words, "extraordinary" and "imminent." Furthermore, they had titled their report "Euthanasia and Terminal Illness." The reference committee on the floor of the House of Delegates, at the suggestion of the Connecticut delegation, deleted the word "euthanasia," for reasons obvious to anyone interested in the problem.

"Unnecessary Surgery": A resolution was introduced by a member of the delegation at the June 1976 meeting. It asked that the AMA declare it to be "ethically impermissible for a consultant surgeon or anyone or any institution connected with the consultant to 'directly or indirectly' benefit financially, except for the consulting fee, from the required consultation or to perform surgery for the condition in question if considered 'necessary'." This resolution caused a tremendous amount of discussion, especially by Michigan which was involved because of the heavy union influence in Detroit and by New York State. Because of the emotionalism generated by the resolution, it was finally referred to the Board of Trustees for study and report back to the House at the December session. It proved to be a hot potato. Because of possible "judicial and legal problems" which could arise if the resolution were adopted, the House accepted the motion that it not be adopted. The House will be kept informed of the influence of such programs on the cost and quality of medical care.

Though the consensus of the House seemed strongly to be in favor of some action, it provided one more proof of the influence of the law in our medical decisions. The FTC complaint now overhangs many decisions of the AMA and state societies.

Non-Connecticut Resolutions: Usual, Reasonable and Customary: The House adopted the sense of three resolutions that the AMA continue to pursue through all appropriate means the enactment of national legislation permitting the use of relative value scales by the medical profession. As most physicians realize, here also the FTC is attacking use of RVS by specialty organizations.

Full-Time President: A resolution proposing that the AMA provide for a full-time salaried president provoked much discussion. It was referred to the Board of Trustees for study and report at the coming meeting. Though the president of the AMA is the titular head of the AMA, his is a one-year term. Though most physicians and the public consider his position relative to the profession to be analogous to our nation's president and the citizens of the country, organizationally the AMA Board of Trustees is modelled on the business corporation, vesting in the chairman of the Board, actually and pragmatically, more authority in the organization than the president. The proponents of such an idea would like someone to be recognized as the spokesman of the AMA similar to Meaney and Woodstock and their unions, though the House has formally stated that the President shall be the official spokesman of the AMA. Many delegates, however, shy away from that concept, especially with the memory of "Mr. A.M.A." Fishbein still fresh in their minds. (The Council as its March meeting adopted a motion, sent to the Board of Trustees, against the idea.)

Fraud and Wrongdoing in the Profession: The AMA strongly condemns and deplores all acts of wrongdoing, particularly as reported in the Medicaid and Medicare programs. It offers its services to responsible governmental agencies and urges prosecution of all who are charged with fraudulent misconduct. On the other hand, the AMA also protested improper and undocumented allegations of abuse and/or fraud made against physicians by government officials or agencies or by the news media.

Designation of Primary Care Specialties: This proved to be an important report and recommendation because of its legal and governmental implications (printed in the March issue of *Connecticut Medicine).* The House voted that primary care is a type of medical care delivered by physicians who emphasize first contact care and assume ongoing responsibility for the patient. . . It further recommended that the medical specialties of family practice, internal medicine, pediatrics and obstetrics/gynecology be recognized as the major, although not the sole, components of the profession which, together with general practice, provide primary medical care to the American public. It further recommended that in no way should this be interpreted as precluding a patient from having free choice of his personal physician or his consulting physician.

This provoked quite a bit of discussion even among our New England Delegation. It introduced an amendment on the floor of the House of Delegates stating that the designation of a primary care physician should be, not by category or specialty discipline, but by function, responsibility and service rendered. This however, was defeated—again primarily not from the medical point of view, but because of legal and governmental implications.

The Sick Physician: In response to a previous resolution that the AMA recommend to the JCAH that its Standards providing that hospital medical staff bylaws outline the frequency, necessity, and type of evaluation of the medical staff members, the House voted to eliminate this provision, while reaffirming its support of periodic evaluation of members of hospital medical staffs, including consideration of their physical and mental status.

The AMA, through its Commissioners on the JCAH, support the mechanism whereby a committee of the medical staff reviews an individual's status and has authority to require the individual to submit evidence of his health status by a physician, either from the hospital staff involved or an outside physician who is acceptable to the executive committee of the medical staff if requested by the physician. (The next step is that this resolution goes to the JCAH by the AMA Commissioners requesting a change in the wording of the medical staff Standards of the JCAH.)

Medical School Participation in the AMA: The Board of Trustees and the Council on Medical Education, always striving for unity and inclusion of all elements of the profession into the AMA, recommended establishment of a mechanism to increase liaison between administration and deans of medical schools and the AMA. This would not only promote unity within the profession, but also give medical schools a voice in the development of policies that directly affect their institution. The Council on Medical Education of the AMA has reviewed medical schools since 1906 and has shared responsibility for their accreditation with the Association of American Colleges through the Liaison Committee on Medical Education since 1942. Deans have expressed their enthusiasm for increasing liaison with the AMA. The mechanism to effect this cooperation will be presented to the House of Delegates at the coming session.

Excessive Fees in CME Programs: In response to a previous New Jersey resolution calling for investigation of excessive fees for programs of CME, the Council on Medical Education, after an exhaustive study, reported that the cost and fee structure of CME activities of institutions and organizations are not actually associated with excessive fees. It outlined the ingredients making for present cost and fees. The Council will continue to identify cost components to increase effectiveness, and also to police this important issue.

Podiatrists: The House reaffirmed the Standards of the JCAH regarding podiatry. Though the Standards give no advice on how to handle applications, once given, they require that management of podiatrists' patients, including surgery, be under medical and surgical supervision. The podiatrist will be responsible for the podiatric care, and may write orders within the scope of his license. Hospital medical credential committees will assess applications on an individual basis, as well as the scope of his privileges.

Use of Alcoholic Beverages on the TV—In addition to expressed concern about violence and smoking in the visual media, passed at the previous meeting, the House of Delegates expressed its concern over the increased use of alcoholic beverages, particularly by young people and women, and recommended discouragement of its use in the visual media.

Franz J. Ingelfinger—The House of Delegates, by a closed vote, selected Franz J. Ingelfiner, M.D., Editor of the *New England Journal of Medicine,* from three candidates nominated by the Board of Trustees, to receive the AMA Distinguished Service Award, the AMA's most prestigious award, to be presented at the 1977 Annual Convention.

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Cancer Coordinating Committee

E. Tremain Bradley, Chairman

Number of Members: 12
Number of Meetings: 9
Average Attendance: 6

Summary of Activities: The Committee suffered great loss since the writing of the last Annual Report in the death of Drs. Barbara Christine, Harold Barrett and Wayne Whitcomb, each of whom had long been members of the Committee, had been extremely contributory and dedicated. Their devotion and warm friendship will continue to be an inspiration to those remaining. Dr. Christine and the Health Department initiated the planning phase of the Community Based Cancer Control Program. Dr. John Cutler has picked up the pieces and along with Dr. Bradley as a Consultant completed the initial phase in the Northwest third of the State. A site visit by representatives of NCI was held February 10 and 11, 1977, at Mt. Sinai Hospital. Hopefully the plan will be approved and implementation can begin later this year gradually spreading over the entire State during the next five years.

On the Council of the Connecticut Cancer Epidemiology Unit Drs. Hugh Lena and Robert Sax have been named as alternates to Drs. John Meyer and E. Tremain Bradley. With Dr. J. Wister Meigs in charge the Unit is working through Norman Thetford to update the mechanics and the efficiency of the Connecticut Tumor Registry. Equipment has been obtained for putting 300,000 records on tape. At a time when the leadership of the Tumor Registry was in jeopardy, the Cancer Coordinating Committee, through its Chairman helped stabilize the situation and hold Mr. John Flannery in that position. The CCEU has been set up to be able to answer questions fairly quickly to individuals and institutions so that the Tumor Registry can be of real service to physicians and hospitals in the State. This flexibility and speed under the present contract arrangement would be dragged out to two to four years if individual proposals had to be prepared, sent to Washington and processed and then the detailed work started. A recent site visit was conducted in an unsatisfactory manner, and appeal is being made to NCI. Dr. Meigs and his staff have visited some community hospital tumor services in a healthy exchange of information. They are amenable to invitations.

Interest and activity have not been lacking in the Cancer Coordinating Committee during this past year. Membership attendance was good for the most part and an average of five guests were present per meeting. Several organizations have a standing invitation to be present and participate, but also other organizations and individuals have been brought in to participate and to help the Committee "co-ordinate".

The Tumor Registars Association of Connecticut was formed a year ago with the encouragment of various organizations and has now been recognized by hospital administrators. It is hoped that this will help these individuals to do their job better and will emphasize to the hospital administration and staff the importance of good record keeping and reporting.

An Ad Hoc Sub-Committee under Dr. Robert E. Sax is working on hospital tumor programs. The Cancer Society, the Community Based Cancer Control Program, the Epidemiology Unit and the Yale Comprehensive Cancer Center (Jose Velez) are assisting with this, again demonstrating the unusual and fine collaboration of the various agencies concerned with cancer in Connecticut.

With some 20,000 copies of *Follow-Up of Cancer A Handbook for Physicians* (four printings) having been distributed, the American College of Surgeons Commission on Cancer has utilized this format and material to publish in loose-leaf form an expanded version called "The Patient with Cancer—Guidelines for Follow-Up". It is gratifying that the Connecticut State Medical Society has contributed so much to physicians and patients even far beyond the confines of our State.

The Committee attacked the relationship of thyroid cancer to previous radiotherapy, as for thymus, acne, tonsils and adenoids, and found it impractical to attempt to trace the people who received such treatment. The papillary and follicular cancers which are sometimes related to radiation are usually slow growing, amenable to total surgical extirpation in the early stages and have a long expectancy even with some disease present. A scare technique for the public was felt to be contraindicated. A statement was therefore published in *Connecticut Medicine* January 1977, urging physicians to look for any history of previous radiotherapy to the head and neck and when such history exists to perform meticulous and faithful periodic physical examination of the thyroid. A statement was also released to the media in anticipation of a TV discussion of the subject on "60-minutes" on January 16, 1977.

A statement of mammography was published in *Connecticut Medicine* November, 1976, hoping to avoid a false sense of security from a negative mammogram when a lump is palpable. This has aroused some controversy among the radiologists.

Much correspondence, research and discussion resulted in a statement being submitted to *Connecticut Medicine* concerning the advisability of sending for histo-pathologic examination specimens which are excised outside the hospital.

In cooperating with the Yale Comprehensive Cancer Center and trying to promote its Regional Activities Program the Committee has welcomed a guest at nearly every meeting. Our Committee Chairman was strongly supportive in the NCI site visit for the Center. More enthusiasm needs to be developed internally at Yale. The Committee wrote to Jack Cole, M.D., who is in charge of the Comprehensive Cancer Center, offering cooperation and inviting him to attend a meeting for full discussion. On February 23, 1977, he reported that YCCC's executive committee voted unanimously to develop deliberately and well a new proposal for Regional Activities—in consultation with groups throughout the State. Kurt Parkum, Ph.D. is interested in studying patterns of referral of cancer patients in Connecticut. The Committee felt this study could be helpful to both physicians and patients and wanted to cooperate with him. The Communications arm of the Comprehensive Cancer Center in April, 1976; established a Hot-Line, 1-800-922-0824, where callers can get general information about cancer and cancer services and about cancer consultants in their own area. An average of twenty to thirty calls a day or four hundred calls a month are received. The communications arm is also publishing a monthly calendar in hopes of avoiding duplication but particularly of informing physicians what interesting and educational activities are available for their participation.

Officials of the Leukemia Society of America discussed with the Committee the activities of their three chapters in Connecticut. Of particular interest was the ZIG (Zoster Immune Globulin) Program in which blood is drawn for patients with shingles. The globulin is then given to leukemia patients who have chicken pox, since they usually die unless they get this within three days. Donations of serum from zoster patients will be much appreciated.

Committee on Public Health

Marjorie A. Purnell, Chairman

Number of Members: 20
Number of Meetings: 11
Average Attendance: 12

Summary of Activities: The following list of additional participants invited by the Committee contributed greatly to facilitate the studies, investigations, and discussions of the topics requested by the Council or suggested by members:

John L. O'Connell, Public Transportation Administrator Department of Motor Vehicles; James Rockos, Director of Health for Torrington; Elizabeth Wilson, of the Association of Community Health Service Agencies.

Representatives from the Connecticut State Department of Health: Harold Barrett, Jerry Dabbs, John Lewis, Michael Rosetti, Tony Sardinas, Rose Sargent, Estelle Siker, Theodore Williford, Richard Woodhull.

Areas of Concern: Rural, occupational, and public health.

The Swine Influenza Vaccine program was studied in detail as it developed during the six months prior to the actual giving of the vaccine: The areas of vaccine production, the organization of centers for the procurement of the vaccine, the informed consent cards, the role of the Public Health Nurses, and the organization of areas for the final giving of the vaccine. Also the federal liability coverage, Connecticut State Medical Society-Aetna coverage, and the fee schedule for private physicians who gave the vaccine in their offices were discussed at length. Suggestions were sent to the Department of Health relative to age priority. A long discussion of the problems of Swine Influenza, and the requirements of vaccination clinics in municipalities, rural, and occupational settings ensued. The development of problems relating to these clinics, and the results of the vaccination were taken up as they appeared. Following the immunization program, the appearance of the Guillain-Barre syndrome was analyzed and the resultant regulations for informed consent were perused. The reasons for a developing trend for drug companies to discontinue the manufacture of vaccines was pointed out.

An investigational paper by Dr. Gert Wallach covering the 1918 epidemic of influenza and its relation to the present potential epidemic was presented and discussed. The significance of a distinct pattern to influenza epidemics in general was included. The feeling was that the paper was of such value as to have it considered for publication in *"Connecticut Medicine"*. As a direct result of this influenza investigation, the Committee suggested to the State Department of Health that priorities for distribution of the Monovalent Vaccine be recommended so that the 20-40 year age group receive proper protection against this strain of influenza.

The "Legionnaires Disease" was discussed by members of the State Department of Health. Because of the ongoing investigations, the discussion will be re-opened when the final reports are available.

A severe increase in the incidence of measles in Connecticut stimulated an update of the problem in the state of Connecticut. A discussion with members of the State Department of Health pointed out the finding that children who were vaccinated with the Edmonston B strain of measles vaccine, or who were given gamma globulin, or were vaccinated before one year of age, have not retained the immunization and will need to be re-vaccinated. Clinics, therefore, were proposed for re-vaccination for children vaccinated before 1966. Resulting from the above findings, the optimum age for vaccination has been raised to 15 months.

Many facets resulting from the various immunization programs were pointed out—the decrease in the Rubella syndrome in the past year—a result of stimulating and up-grading the immunization against rubella; the moratorium for A New Jersey Monovalent Vaccine, and the B Hong Kong Influenza Vaccine. New consent forms are to be used for vaccination programs to indicate the possibility of the Guillain-Barre syndrome.

The subject of insurance coverage for any immunization programs was approached. Coverage would provide compensation for persons who suffer permanent injury from the immunization process. Dr. Neumann has suggested legislation to this result.

The current status of full time health departments was considered by the Committee and included the subjects of new regulations; the changing face of the non-medical director of health; the organization of the various types of district health departments and comparisons of expenditures before and after district organization. Inner city versus rural problems were compared in such an organization. The responsibility for medical problems in such districts should be given to *medical directors*. It was recommended that full time health departments obtain support from the state similar to that given to education and welfare.

An update of the status of well child clinics including the code regulations for minimum standards for operators of such clinics and the requirements for licensing free standing outpatient child health clinics was discussed. Their regulations are intended to promote optional child health preventive services and to provide counselling services for all of the family members by nurses and/or physicians. The organization of these clinics was found to be a comprehensive structure involving many disciplines and outreach possibilities. Referral patterns to crippled children's clinics were discussed relating the family physicians or primary care physicians, public health, and school nurses, to the needs of this segment of the child population of the state.

The problems of health screening in industry and the use of occupational therapy for retraining persons were brought out and discussed.

A statute for mandatory health education in Connecticut schools was perused; this action has been discussed at the levels of the Connecticut Advisory School Health Council and the AMA. An ad hoc committee to work on a forum for the discussion of a legislative proposal along this line was requested by the Council. This committee included members of the Public Health Committee and a health forum was offered in December and was well attended. The speakers included well known educators, health care providers, physicians, and consumers well versed in the needs for health education. Much enthusiasm resulted from this conference and the draft of a bill was submitted, then sent to the Council for further perusal by the legislative committee. The bill calls for a state advisory committee of three physicians to be appointed by the State Medical Society to work with educators on such a program.

Legislation bills pertaining to areas of concern in public health, rural health, and occupational health were discussed with representatives from the health department. Recommendations for support or non-support by the Connecticut State Medical Society were passed on to the Council.

An advisory committee for the study of guidelines relative to possible licensing of itinerate clinics which have been mushrooming in Connecticut was chosen from this Committee: Drs. Chaucer, Hart, and Johnston.

The influx of proprietary organizations for the provisions of health care personnel stimulated a discussion of the specific present problems of the Connecticut Public Health Nursing Association. Many services, it was found, including preventive education and guidance counselling are not provided by these proprietary organizations. Fee schedules were discussed as well as a comparison of the limitations of both agencies and the amount of supervision of the type of care required for the patients. In order to cope with the increased demand for services, it was found that an increase in funding, personnel, and an extension of services are necessary. The Committee, and the Public Health Nursing Association proposed to the legislative committee a requirement that a certificate of need be established by public health agencies. A delay of 2 years for licensing the proprietary organizations was proposed to allow for the expansion. The Committee promised its support and suggested that the Medical Society follow suit.

New regulations to be found in the Public Health Code relative to sewage disposal installers and cleaners of septic tanks were discussed with a member of the Department of Health. The problems resulting from the conversion of summer cottages to permanent residencies were pointed out. Machine dishwashing regulations were discussed. Federal regulations relative to the maintenance of safer public water supplies as well as regulations of standards controlling shellfish beds were noted. Safer drinking water regulations are to be submitted by the State Department of Health. Connecticut should update its filtration process. Turbidity and color of water are being studied by our Health Department relative to their abilities to shield viruses. The latter can be removed by coagulation, settling, filtering, then chlorination. Ozone treatment of water was discussed. Profound changes in regulations regarding better watershed protection and water supply protection especially against chemical pollutants were suggested. Certification methods for operators of water treatment plants were proposed.

The handling of medical requirements and the problems resulting therefrom in the area of licensure for operators of the public motor vehicles and service buses consumed a great deal of time and investigation by the Committee. Guidelines and requirements from other states and the Federal government were studied along with those from municipalities within this state. Two meetings were held with a member of the Motor Vehicle Department.

The Committee felt that changes in the requirements might be found in the areas of: history of tuberculosis, the use of insulin for diabetes, competency testing of the elderly and testing for hearing and vision. The Committee suggested the formation of an official advisory board for medical problems to which the Commissioner could refer questions or to act as an appeal board for persons whose license is refused or revoked because of medical reasons. Problems with questionable applications, with accidents, or with evaluation of the capability of persons for driving with a physical or mental handicap could be considered for referral. A preamble to the regulations was suggested to be inserted before the examination is signed by the examining physician, would indicate a sharing of the responsibility for the safety of the passengers of such vehicles by both the physicians involved and the driver of such public vehicles.

The creation of multiple newly formed agencies within the Health Department, Mental Health Department, as well as the confusion of duties within the areas, of consumers' protection, environmental protection, and the Labor Department, has caused much concern among health care providers. The Committee on Public Health is greatly concerned, also, and warns of the intolerable mass confusion resulting often in a lack of communication and a resultant lack of accomplishment of the prime purpose of comprehensive health care.

Residents Merit Award

The Connecticut Chapter of The American College of Physicians

AWARD:

The Connecticut Chapter of the American College of Physicians will sponsor two medical residents to attend the Annual Meeting of the ACP in Boston in April, 1978. An award of up to $250.00 will be given each resident to cover the expenses of attending this meeting.

CRITERIA:

1. Applicant must be a resident in an approved medical residency program in a Connecticut hospital.
2. Applicant must be an associate member of ACP.
3. Applicant must submit a medical essay, not previously published, on a scientific or non-scientific aspect of medical care, or a case report to the Secretary of the Connecticut Chapter by October 1, 1977.

APPLICANT:

4. Applicant preparing manuscripts for submission should consult "Information for Authors." This material may be obtained from *Connecticut Medicine,* 160 St. Ronan St., New Haven, CT 06511. Telephone (203) 865-0587
5. Articles should not exceed 2,500 words (approximately three printed pages).
6. Publication of the two winning reports will appear in *Connecticut Medicine.*
7. Awards will be made in January, 1978.

SUBMIT PAPERS TO:

Joseph L. Belsky, M.D., F.A.C.P., Secretary, Connecticut Chapter, ACP, c/o Department of Medicine, Danbury Hospital, Danbury, CT 06810.

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA
THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W., WASHINGTON, D. C. 20005

In Memoriam

Banks, Daniel T., Fordham Medical School, 1912. Dr. Banks was a surgeon in the Fairfield area since 1913 until his retirement. He was a member of the Fairfield County Medical Association the Connecticut State Medical Society and the American Medical Association. Dr. Banks died May 3, 1977, at the age of 88.

Becker, Joseph, New York University, 1929. Dr. Becker was a dermatologist in the New London area for 47 years. He was an Army veteran of World War II and a member and past president of the New London County Medical Association. He was also a member of the Connecticut State Medical Society. Dr. Becker died May 9, 1977, at the age of 72.

Bernstein, Abraham, Yale Medical School, 1908. Dr. Bernstein was a general practitioner in the Fairfield area since 1908, until his retirement. He was a member of the Fairfield County Medical Association, the Connecticut State Medical Society and the American Medical Association. Dr. Bernstein died May 26, 1977, at the age of 92.

Danaher, Thomas J., Yale Medical School, 1928. Dr. Danaher was a practicing physician and surgeon in the Litchfield area for almost 50 years. He was the organizer and first president of the Connecticut Medical Services, Inc., and served as a member of the Board of Directors and also chairman of its Professional Policy Committee. He was a member of the Litchfield County Medical Association of which he was president in 1952; the Connecticut State Medical Society of which he was president in 1950; and the American Medical Association. Dr. Danaher died May 12, 1977, at the age of 73.

Flaherty, Claude V., Yale Medical School, 1910. Dr. Flaherty was an obstetrician and gynecologist in the Hartford area since 1911. A graduate of Yale Medical School, class of 1910, Dr. Flaherty had his internship at St. Francis Hospital and later returned to become chief of the obstetrics and gynecology staff and later, in 1946, president of the hospital's medical staff. He was a member of the Hartford County Medical Association, the Connecticut State Medical Society, the American Medical Association, and the Knife and Stork Club. Dr. Flaherty died June 18, 1977, at the age of 92.

Feola, Benjamin J., University of Maryland, 1960. He was an obstetrician and gynecologist in the New Haven area since 1965. Dr. Feoa was an attending physician on the staff of the Hospital of St. Raphael and Yale-New Haven Hospital, and had a private practice in Branford and Clinton for 12 years. He was a member of the New Haven County Medical Association, the Connecticut State Medical Society and the American Medical Association. Dr. Feola died June 18, 1977, at the age of 43.

Gryce, Walter I., New York Medical College, 1944. Dr. Gryce was a general surgeon in the Fairfield area since 1953. He was a Captain in the Marine Corps, Army Service, from 1945-1947. He was a member of the Fairfield County Medical Association, the Connecticut State Medical Society and the American Medical Association. Dr. Gryce died March 8, 1977, at the age of 58.

Kalin, Jacob I., Harvard Medical School, 1924. Dr. Kalin was a practicing physician in the Hartford area for 50 years. Dr. Kalin was a staff physician at St. Francis Hospital and Medical Center and Hartford Hospital. He was a member of the Hartford County Medical Association, the Connecticut State Medical Society, and the American Medical Association. Dr. Kalin died June 4, 1977, at the age of 78.

Mandl, George, Vienna University, 1932. Dr. Mandl was a general practitioner in the Fairfield area since 1944. He was a member of the Fairfield County Medical Association and the Connecticut State Medical Society. Dr. Mandl died April 27, 1977, at the age of 70.

Milone, Henry S., Georgetown Medical School, 1950. Dr. Milone was a practicing physician in internal medicine in the New Haven area from 1950 to 1975, when he retired. He was the attending physician of Internal Medicine at the Hospital of St. Raphael and at Yale-New Haven Hospital, a clinical instructor in medicine from 1953 to 1961 and a physician for the Department of University Health at Yale. He was a member of the New Haven Medical Association, the New Haven County Medical Association, the Connecticut State Medical Society, and the American Medical Association. Dr. Milone died May 30, 1977, at the age of 69.

Sullivan, Charles N., McGill University, 1930. Dr. Sullivan was a dermatologist in the Hartford area since 1937. He was a member of the Hartford County Medical Association, the Connecticut State Medical Society and the American Medical Association. Dr. Sullivan died March 10, 1977, at the age of 73.

PHYSICIAN PLACEMENT SERVICE

The Society maintains the Physician Placement Service as a service to the medical profession in the State of Connecticut. Opportunities for physicians to locate in Connecticut will be published as space permits and will be distributed to physicians making inquiry of such opportunities. Information should be sent to 160 St. Ronan Street, New Haven, Connecticut 06511, (203-865-6822).

Physicians wishing to establish practice in Connecticut are invited to submit a resume to be kept on file with the Society. An announcement of a physician's availability will be published in two consecutive issues of *Connecticut Medicine.*

OPPORTUNITIES FOR PRACTICE

(If no name is listed, contact the Physician Placement Service for more details.)

Family Medicine or Internal Medicine: Position available now for Medicaid long-term patient review. Norwich area. Part-time (15 hrs. per week) on a contract basis. Fee negotiable with use of state car or 15¢ mileage. Interested physicians contact Mr. Harold McIntosh, Assistant Director at 566-2928 or 566-3435.

Family Medicine or Internal Medicine: (Primary Care) Manchester, CT, with 50,000 population needs physicians. Beautiful place to live and congenial medical community ready to help newcomers. Excellent coverage system functioning in addition to full time emergency department physicians in the 300 bed community hospital. Contact: Manchester Medical Association, Manchester Memorial Hospital, Manchester, CT. 06040.

Internal Medicine: With experience in alcohol detoxification as part-time Medical Director of private Alcohol Rehabilitation facility. Salary $20,000 to $24,000 depending upon qualifications. Contact CSMS.

Ob/Gyn: Board certified or eligible to work with established practitioner in a 13 man multi-specialty corporation. County practice in relaxed atmosphere with all facilities in northwest CT. 2 year salary followed by full membership status. Contact CSMS.

Pathology: Board eligible or certified. Estimated service population 25,000 plus. Contact H.L. Green, Jr., Administrator, Winsted Memorial Hospital, Winsted, CT 06098. Tel.: 203-379-3351.

Primary Care Medical Director: So. Central Conn. opportunity for family practice physician with experience in academic or group setting to serve as medical director of a satellite primary care center sponsored by Robert Wood Johnson Foundation. Preferred candidate will be board certified in family medicine and should possess leadership qualities and administrative skills. Desirable community with good schools. Excellent salary and fringe benefits. Candidates should be available early '78. Send CV and salary requirements to Mr. T. Benoit, Administration, Griffin Hospital, Derby, CT 06418. Tel.: 203-735-7421.

Public Health: The City of Meriden, Connecticut, is seeking a new Director of Public Health. M.D. and MPH in Administration preferred. Salary open. Please contact Edward J. Papandrea, Director of Personnel, City Hall, Meriden, CT 06450. Telephone: 634-0003.

PHYSICIANS WISHING TO LOCATE IN CONNECTICUT

FAMILY PRACTICE

Available now. Age 45. Conn. license. Looking to buy home/office combination with currently active high volume GP. Purchase of separate office of retiring M.D. considered. Contact CSMS.

Sept. '77. Age 32. Cert. with Nat'l Bds. wishes grp. or assoc. practice. Presently in practice. M.D. Jefferson Med. College., Res. Univ. of Calif.-Sacramento, Med. Ctr. David M. Spiegelman, 5520 E. Bloomfield Rd., Scottsdale, AZ 85254.

FAMILY MEDICINE

July '77. Age 37. Presently doing surgical res. but interested in starting GP. Solo, grp. or assoc. practice preferred. Applied for Connecticut license. Mohammed I. Alvi, M.D., St. Barnabas Medical Center, Old Short Hills Road, Livingston, NJ 07039.

July '77. Age 28. M.D. from Univ. of Pittsburgh. Int. and res. at York Hosp. Nat'l. bds., elig. Will consider temporary ER work. Gary M. Cummins, M.D., 1001 S. George Street, York, PA 17402.

July '77. Age 46. Connecticut license. Int. and res. in England. Interested in FM or ER or ambulatory or primary care positions. Syed A.A. Shah, M.D., 94-48 A Alstyne Avenue, Elmhurst Queens, NY 11373.

INTERNAL MEDICINE

July '77. Age 28. Int. from Genesee Hosp., res. at Rochester. Nat'l. bds., elig. Within 10-20 mile radius of Farmington. Minimal financial investment. Thomas P. Chairmont, Jr., M.D., 112 Berkeley Street, Rochester, NY 14607.

July '77. Age 32. Currently on the faculty of UConn. M.D. from Johns Hopkins. Solo or institutional practice. Younus F. Masih, M.D., 55 Elizabeth Street, Box 218, Hartford, CT 06105.

July '77. Age 35. M.D., int., res. and fellowship, London, England. Elig. Institutional or industry practice. Large or medium community desired. Brahm D. Sethi, M.D., Fern Towers, #305, 50 S. Munn Avenue, East Orange, NJ 07018.

Cardiology: July '77. Age 38. Cert. Mainly interested in IM and if facilities exist some clinical cardiology also. Nairvittil Chandrasekharan, M.D., Bergen Pines County Hospital, Paramus, NJ 07652.

Oct. '77. Age 30. ABIM, desires locum tenens for one month or longer. M.D. Univ. of Calif. Alan Kneitel, M.D., 3978 Sacramento, San Francisco, CA 94118.

Oncology. Oct. '77. Age 33. Conn. license. Bd. Elig with Nat'l. Bds. Part-time or full-time position. M.D. Univ. of Pa., Int. Greenwich Hospital, res. Greenwich and St. Raphael's Hosp., CT. Contact CSMS.

Diabetes. Aug. '77. Age 30. Bd. Elig. in Endocrinology. Would like to assume role for teaching Diabetes and Metabolism and/or IM in either Univ. or community hosp. program. Will consider industry or private practice, assoc. in subspecialty-oriented setting. Sandra Beth Raff, M.D., 305 West End Ave., Apt. 11B, New York, NY 10023.

Endocrinology: July '77. Age 31. Cert., Nat'l. Bd. Willing to do some general IM in addition to subspecialty. MD from Cornell. Int. at Greenwich Hospital, CT. Presently End. fellowship at Upstate Med. Center. Nestor B. Tomycz, M.D., 50 Presidential Plaza, Apt. 410, Syracuse, NY 13202.

Gastroenterology: July '77. Age 29. Cert. IM, Elig. GI. Nat'l. Bd. MD from Tufts. Strong clinical training, currently in solo GI practice, seeks relocation. GI partnership, group, or hospital practice. Paul V. Hellman, M.D., 24 Royal Crest Dr., North Andover, MA 01845. Tel.: 617-685-2499.

NEUROLOGY

Available now. Age 35. FLEX. Elig., M.D., Int. and res. in India., Fellowship Metropolitan Hosp. NY. Wishes grp., assoc. or instit. practice in med. community. Sadasivam Modali, M.D., 51-55 Vankleeck St. Apt. 3J, Elmhurst, NY 11373.

NEUROSURGERY

Sept. '77. Age 36. All training from India and Czechoslovakia. Seeking position in state or community hosp. Rajendra M. Trivedi, M.D., 6 Rock Glen Rd., Medford, MA 02155.

OB/GYN

July '77. Age 33. FLEX. Elig. Prefers solo practice in small or medium community close to a city. Res. and int. Montefiore Hosp., NY. R. George Cherian, M.D., 3450-21N Wayne Avenue, Bronx, NY 10467.

July '77. Age 32. FLEX. Cert. Fellowship at Notre-Dame Univ., Canada. Solo, group or assoc. practice. Said Papas, 715 135h Avenue, #334. Sherbrooke, Quebec, Canada J1E 2Y7.

ORTHOPEDICS

July '77. Cert. Conn. license. M.D. from Case-Western. Experience in industrial and administrative medicine. Would like to work in industrial medicine or a student health service Contact CSMS-HAF-Orth.

PEDIATRICS

July '77. Age 29. Cert. in Pediatrics and elig. in allergy and immunology. Fellowship at Long Island College Hosp., NY. Seetharaman Adimoolam, M.D., 49 E. 40th Street, Brooklyn, NY 11203.

Available now. Age 29, FLEX. Elig. Institutional, industrial or associate practice in large or medium community. Res. and presently fellowship at St. Raphael's Hosp., New Haven. Contact CSMS—Ped. AKU.

Surgery: July '77. Age 36. Elig. Res. at Jewish Hosp., Ohio, Variety Children's Hosp., Florida and presently at St. Joseph's Hosp., Colorado. Will consider all opportunities in Ped.-Surg. Contact CSMS-Ped.-SRP.

Sept. '77. Age 30. Elig. (1st Half passed) Nat'l. Bds. M.D., int. and res. Univ. of Conn. Thomas H. Gorin, M.D., Mountail Rd., R.F.D. #2, Alfred, ME 04002.

Available now. Age 32. Conn. license. Elig., Nat'l. Bds. M.D. Univ. of Conn., Res. Montefiore Hosp., NY. Presently doing fellowship program at Yale. Interested in part or full-time position primarily for the period 7/77-6/78, with possibility of a longer-term commitment. Stewart L. Wolff, M.D., 190 Foxon Rd., East Haven, CT 06513.

PSYCHIATRY

(Husband-wife team) August '77. Part-time. Cert. gen. psy., elig. child psy. Res. and fellowship at Mt. Sinai Hosp., Elmhurst, NY. Consider all types of practice. Angeline C.N. Desai, M.D. and Sureshchandra N. Desai, M.D., King Edward Building, 79-11, 41st Avenue, Apt. B4-11, Elmhurst, Queens, NY 11373.

September '77. Age 38. M.D. from Univ. of Ottawa. Res. at Montreal Gen. Solo or group practice desired. Experience as Director of Day-Care Center as well as group therapy and resident supervision and tutoring. J.P. Augustine Noonan, M.D., 1640 Montpellier, St. Bruno, Quebec, Canada J3V 4P5.

SURGERY

July '77. Age 31, FLEX. Elig. M.D. from Damascus Univ. Int. New Britain Gen. Hosp., Conn. Res. Univ. of Conn. Group or assoc. practice in large or medium community. Mohammad Amawi, M.D., 1213 13th Ave., Apt. 1321, Dodge City, KS 67801.

Available now. Age 33. Conn. license. Training in Singapore. Res. Baystate Med., Springfield, MA. Interested in doing E.R. work. Extensive E.R. experience. Pong Ping Cheng, M.D., 677 Bacon Circle, Springfield, MA 01109.

July '77. Age 31. FLEX. Elig. Will consider all types of practice. Int. at Worcester City Hosp., Mass. Res. at Methodist Hosp., NYC. Aly A. Bassal, M.D., Methodist Hospital, 506 Sixth Street, Brooklyn, NY 11215.

SURGERY (continued)

August '77. Age 33. Nat'l. bds. Cert. Presently serving in Army. M.D. from Columbia. Int. and res. at Roosevelt Hosp., NY. Group or assoc. practice desired. Experience in gastroscopy and colonoscopy and vascular surgery. Kenneth G. Benoit, M.D., 5th General Hospital, APO NY 09154.

August '77. Age 34. Nat'l. bds. Cert. M.D. from Harvard. Res. at Univ. of California. Solo, group or assoc. practice desired. General surgery including thoracic and vascular. Contact CSMS-Surgery-PEG.

July '77. Age 36. Elig. All education from Cairo Univ., Egypt. Solo, group or assoc. practice in large or medium community. Presently Chief surgical resident at Grace Hosp., Michigan. Ahmad S. Hassan, M.D., 841 Barrington, Grosse Pointe Park, MI 48230.

July '77. Age 33. Res. at Norwalk Hosp., CT. Presently doing res. program at Morristown Mem. Hosp., NJ. Assoc. practice in med. community. Norman Val B. San Agustin, M.D., 146-C Franklin Street, Morristown, NJ 07960.

July 1977. Age 31. Bd. cert. M.D. Cornell, res. NYU Med. Ctr. Group or associate practice in large or medium community. Peter A. Jarvis, M.D., 5116 Professional Dr., Wichita Falls, TX 76302.

General and Vascular: July 1977. Age 33. Bd. elig. M.D. from Georgetown. Int. Boston City Hosp. Res. Boston Univ. Surg. Serv. Group or associate practice in large or medium community. Contact CSMS-Surg.-JEK.

July 1977. Age 40. FLEX. Res. at Flushing Hosp. and Med. Ctr., NY. Solo, group, associate or institutional practice. Mariano S. Morales, M.D., 11 Bernard St., Port Washington, NY 11050.

Vascular: July 1977. Age 30. Bd. elig. Int. Mt. Sinai Hosp., Florida, res. New Rochelle Hosp. Group or associate practice in medium community. Darayes S. Mobed, M.D., 80 Guion Place, New Rochelle, NY 10801.

UROLOGY

Available now. Age 44. Elig. Connecticut license. M.D. from Queens Univ., Canada. Int. and res. while serving in Navy. Also res. at Upstate Med. Center, NY. Robert P. Heldt, M.D., 332 Broadway Avenue, W., Watertown, NY 13601

Available now. Age 36. FLEX. Part I Nat'l. Bds. Lausanne, Switzerland. Int. and res. Brooklyn Jewish Hosp. Sol, grp. or assoc. practice. H. Barry Opell, M.D., 1275 E. 51st St., Brooklyn, NY 11234.

July 1977. Age 33. FLEX. Bd. elig. Group or associate practice in large or medium community. M.D. from Georgetown. Int. at Bronx Municipal Hosp. Res. at NY Univ. Med. Ctr. Jeffrey Kossow, M.D., 414 Fireside Lane, Cherry Hill, NJ 08003.

July 1977. Age 34. Bd. elig. M.D. from Duke. Int. at NYU-Bellevue. Res. at John Hopkins. Group or associate practice in large community. Presently on active duty. Arnold M. Kwart, M.D., 820 Bayfield Way #301, Colorado Springs, CO 80906.

July 1977. Age 31. Bd. elig. M.D. from Downstate. Desires private practice situation leading to partnership. Contact CSMS-UR-JSO.

July 1977. Age 33. Bd. elig. Also Bd. Gert. in Pediatrics, but prefers to practice Urology. Solo, group or institutional practice in medium community. Mariano L. Orca, M.D., 350 Lenox Rd., 5C, Brooklyn, NY 11226.

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Guidelines For the Health Care of the Elderly

The Connecticut State Medical Society recognizes the desirability of preserving, as well as enhancing both the availability and the distribution of quality health care for the elderly. To this end, the Judicial Committee herewith attempts to outline the health needs of this important segment of society, the aging.

In providing adequate health care for the elderly, the burden falls not only upon the medical profession, but also upon society, which includes the family and the community. In view of the growing number of elderly persons in our society, it is important that all persons involved review their current commitment to the aging, so that they may not be neglected.

As their numbers continue to increase, it will become more necessary than ever that we staunchly and vigilantly see to it that their interests are protected, that they are courteously and considerately treated in offices, clinics, hospitals, and nursing homes. Incorrectly labeling the elderly as incompetent for whatever reasons must be avoided. We must insist that good and continuous records be kept, whether in our offices or in nursing homes; and that the responsible parties inform the patients themselves or their families properly regarding diagnosis, treatment, and prognosis as these inevitably change.

As the elderly increase in numbers and in needs, we must guard particularly against depersonalizing attitudes and procedures introduced under the guise of bureaucratic efficiency, or worse, the insensitivity of institutional attitudes and usages. Physicians shall continue to visit their patients as often as medical necessity dictates, regardless of restrictions imposed by third parties.

Solace and comfort for the confused, the helpless, the abandoned, and the dying must not only characterize our own relationship, but also our determination that others dealing with the aged follow our example. In no case should terminal patients be left untreated or uncared for, though a decision may be made to forego the use of heroic measures to prolong the act of dying.

There seems to be a continuing threat to the elderly of America exemplified by the willingness of children and responsible relatives to relegate their elderly kin to institutional care for reasons other than medical necessity. We as physicians should use our professional competence to mitigate this trend as far as possible.

By reason of their dedication to each of their patients, the members of the Connecticut State Medical Society recognize their duty as physicians, and re-affirm their commitment to provide quality health care for the elderly.

Judicial Committee
Connecticut State Medical Society

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INDEX TO ADVERTISERS

Aetna Life & Casualty 484
Ansonia Mall Co. 520
Ayr Insurance Agency 500
Boehringer Ingelheim, Ltd .... 518 & 519
Burroughs Wellcome Co. .... bet. 530 & 531
Classified Advertising 536
Colonial Bancorp., Inc. 1
Connecticut Blue Cross 526
Dentocain Co. 535
Elmcrest Psychiatric Institute 526
Eli Lilly & Co. 2
New York Fertility Research Foundation, Inc. .. 536
Pennwalt Corp .... bet 513 & 514
Pharmaceutical Manufacturers
  Assoc. .... bet. 530 & 531, 531
Professional Equities 536
Roche Laboratories ... IFC, bet 496 & 497, IBC, BC
Roerig & Co. .... bet. 496 & 497
Searle Laboratories .... bet. 522 & 523
Smith, Kline & French Laboratories bet. 496 & 497

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OCCUPATIONAL PHYSICIAN. Physician needed to perform professional medical services in an occupational health clinic for state employees.
Both positions require a license to practice medicine and surgery in Connecticut. Submit resume to: John J. Crowley, Personnel Administrator, Department of Health, 79 Elm Street, Hartford, CT 06115. An Affirmative Action Employer.

Connecticut Medicine

The Journal of the Connecticut State Medical Society

VOLUME 41 SEPTEMBER 1977 NUMBER 9

LIBRARY
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scientific:

John M. O'Loughlin 537 Asthma: An Up-to-Date Look at an Old Problem
Spencer L. Butterfield and James H. Foster 545 Results of Elective Operation for Duodenal Ulcer
Morris D. Kerstein, Howard Zimmer, Frederick E. Dugdale and Emanuel Lerner 549 The Delays in the Rehabilitation in Lower Extremity Amputees
Youssef A. Al-Hanna, Philip R. Fazzone and Gerald Fishbone 552 Post-Stenotic Dilatation of the Pulmonary Artery Simulating Central Bronchogenic Carcinoma

special articles:

Aetna Life & Casualty 555 CSMS Professional Liability Insurance Program: 1977 Report to the Society

Medical Grand Rounds of the University of Connecticut:

Robert U. Massey 559 Cost, Quality, and Medical Education
Arthur J. Viseltear 565 Medical Manpower and Public Policy: A Short History of P.L. 94-484
Daniel Callahan 569 The Public and Recombinant DNA Research
Joseph S. Gonnella 547 Medical Care Evaluation Studies: What Do They Measure?
AMA Board of Trustees 577 Physician-Hospital Relationships
Angela R. Holder 579 The Minor's Right to Consent to Medical Treatment

editorials:

Robert W. Berliner 593 To Maintain Academic Integrity
John L. Meyer, II 594 Cost Control
William Karraker 595 CAT Scanners: Let Us Reason Together
AMA Council on Scientific Affairs 596 Guidelines for Recombinant DNA Research

departments:

Isadore H. Friedberg 589 The President's Page
Robert U. Massey 591 Reflections from the Dean's Office

Letters to the Editor:

Robert Fand 597 Cryosurgery of Nummular Psoriasis Lesions
John P. Callan 597 Influenza Epidemic
William R. Richards 598 From the Executive Director's Office

general:

583 Standards for Sponge, Needle, and Instrument Procedures
585 Month In Washington
587 Welcome, New Members
601 Obituaries
602 Notices
603 Physician Placement Service

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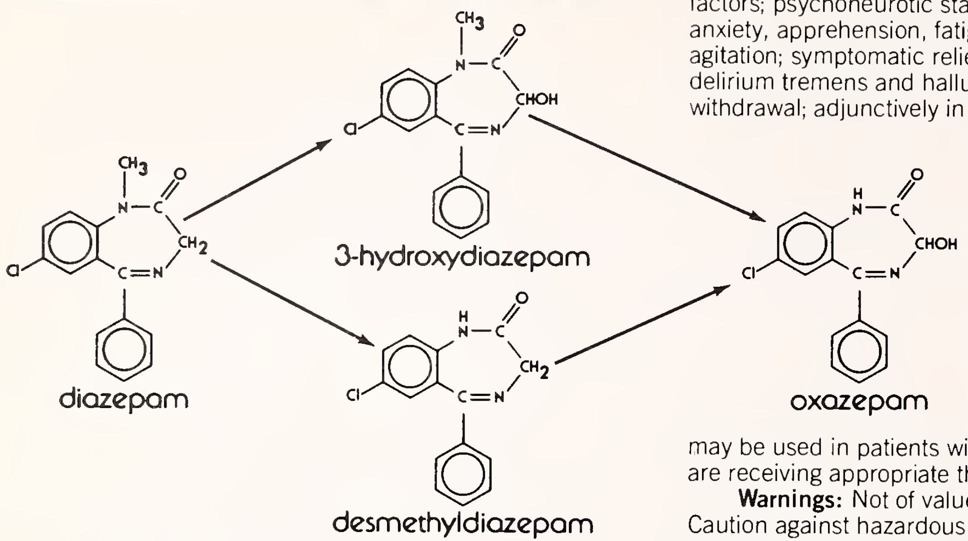
A pharmacokinetic character all its own



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Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Asthma: An Up-to-Date Look at an Old Problem

JOHN M. O'LOUGHLIN, M.D.

Acute bronchial asthma, the commonest respiratory emergency encountered in hospital emergency rooms, is the leading cause of chronic illness in children under 17 years of age and affects millions of Americans. Despite the large number of persons affected with this problem, the disease is often disregarded or given minor attention in both undergraduate and postgraduate training. This article will briefly review the etiology, physiologic abnormalities, immunologic aspects, clinical manifestations, and therapy of this medical problem so that all physicians will have a better knowledge of and ability to cope with the asthmatic patient.

Etiology

Asthma is defined as reversible obstructive airway disease characterized by hyper-reactivity of the airways. A wide variety of provocative factors may trigger episodes of asthma; it is the end result of a susceptible individual's interaction with the environment and the end organ (lung) response.

Allergy

A variety of inhalant allergens are responsible for seasonal and perennial airway disease. Among the pollens, ragweed is probably the commonest offender; this is followed by grass and trees, both of which have a shorter pollination period. Dust and animal dander are perennial inciting factors while mold, commonly considered a perennial inhalant, really peaks in early spring, July and August, and late fall. Mold spores are an often overlooked cause of respiratory problems and generally cease to be a problem when sporulation is inhibited by cold weather or snow. Symptoms of allergic asthma result from interaction of IgE molecules and antigen resulting in rupture of mast cell membrane and release of chemical mediators producing characteristic symptoms.

Infections

Respiratory infections are among the commonest phenomena provoking asthma. Recent studies have shown that respiratory syncytial virus and parainfluenza virus are the primary agents responsible for provoking asthma in children while rhinoviruses and influenza virus predominate in adults. It is not uncommon for a severe viral respiratory infection to initiate an asthmatic state. While the mechanism is poorly understood, the virus probably decreases the irritant receptor threshold and alters the autonomic balance.

Exercise

Exercise is a commonly recognized factor producing acute airway obstruction. Initially a bronchodilation with increased vital capacity occurs with physical stress; however, bronchoconstriction begins within 6 to 8 minutes, and patients become short-winded with maximum difficulty appearing soon after cessation of exercise. The severity of distress depends on the type of exercise with running, jogging, and bicycling the most asthmogenic and swimming and walking the least. The mechanism of bronchospasm is not well understood, and many proposals including hypocapnea and hyperventilation have been suggested. Some studies have suggested that the occurrence of bronchospasm may depend on the release of relatively short-lived transmitter agents during the period of exercise. In any event, premedication with adrenergic agents or xanthines in some patients and cromolyn sodium in other patients will prevent the occurrence of this cause of bronchospasm.

Irritants

A large variety of irritants may produce bronchoconstriction in patients with severe hyper-reactivity and a low threshold of organ reactivity. Cold air, dust, sulfur dioxide, mixed ingredients of air pollution, and other noxious agents can produce symptoms. The mechanism of action appears to be through stimulation of sensory nerve endings located

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beneath the bronchial epithelium. Stimulation of these irritant receptors results in reflex cholinergic bronchoconstriction. Asthma-prone patients, regardless of their immune status, have a threshold of organ response that is lower than normal, leading to excessive cholinergic activity.

Emotions

Anxiety states can play a frequent and significant role in the induction of an asthma attack. Hyperventilation may lead to hypocarbia, which may induce bronchoconstriction. Excessive cholinergic activity has also been suggested as being responsible for the symptomatology in these patients. Irritant receptors may also be stimulated by sudden deep inspirations common in the anxious patient.

Aspirin

In certain groups of patients, aspirin has the capacity to cause bronchospasm. The characteristic triad of rhinitis, sinusitis, and nasal polyposis together with hyperactive airway disease should alert the physician to the disorder. Other chemicals can produce a similar response in these susceptible persons. Indomethacin, phenylbutazone, and mephanamic acid can produce bronchospastic reactions in these patients. It appears that the acetyl radical is necessary for this disorder to occur since sodium salicylate and other salicylate derivatives can be taken safely by these patients.

A small percent of aspirin-intolerant patients react to tartrazine yellow dye No. 5 commonly found in foods, cosmetics, and drugs. This symptom-producing dye is used even in some medications prescribed for the treatment of asthma where, in fact, it may aggravate the condition. A recent exhaustive review of medication containing this dye has been published and should be of great benefit to prevent aggravation of an already life-threatening disorder.

Physiologic Abnormalities

Abnormalities found in the lung change with time and are not uniformly distributed from one airway to the other despite widespread involvement of all airways. At the onset of disease obstruction is due to bronchospasm, but this is soon followed by edema, inflammatory cell infiltrate, and hypersecretion of mucus. As the condition becomes more chronic, the amount of smooth muscle is increased, the wall is infiltrated by inflammatory cells, the basement membrane is thickened, and small airways are obstructed by mucus. In very mild asthma or between clinical attacks the only detectable abnormality may be in the small airways (less than 2 to 3 mm in diameter), which contribute about 10 to 25% of total airway resistance. This subtle defect can only be ascertained by use of tests for small airway disease, such as the maximum midexpiratory flow rate (MMFR) or $\text{FEF}_{25\text{-}75\%}$ which can assess the effect of bronchodilators. As the obstruction increases, progressive flattening of the forced expiratory flow curve is apparent and values for FEV_1 (forced expiratory volume in 1 second) and FVC (forced vital capacity) are decreased. With asthma some reversibility should be noted after inhalation of bronchodilators. Generally, a 10 to 20% improvement will occur in the expiratory flow rates.

Clinically, the bronchodilators act by relieving smooth muscle spasm, inhibiting release of chemical mediators, and increasing air flow rates thus helping to expectorate mucus. The adrenergic agents probably decrease mucosal edema and congestion by alpha or beta receptor action. Steroids reduce the inflammatory cell infiltrate, decrease some of the edema, and relieve bronchial smooth muscle spasm. Antibiotics combat infection, which may prolong the bronchospasm, and also reduce the inflammation.

Immunologic Aspects

In allergic asthma, the immune response is mediated by IgE, or immunoglobulin E, found in the mucosa of the nasopharynx and airways. The molecular weight of IgE is almost 200,000, and it has a large carbohydrate content. IgE binds avidly to tissue mast cells and basophils. Normal human sera levels are about 250 ng per milliliter, but is often 10 times this amount in the allergic patient. IgE antibody can sensitize the human lung for antigen-induced release of histamine, slow reacting substance of anaphylaxis (SRS-A), eosinophil chemotactic factor of anaphylaxis (ECF-A), and platelet activating factor (PAF).

While the exact location of the reaction site is uncertain, when certain antigens combine with two molecules of IgE antibody fixed to target cells this reaction becomes amplified by biochemical and autonomic mechanisms (Figure 1). This reaction triggers the biochemical secretion of chemical mediators from sensitized mast cells. This process involves: (1) a calcium-dependent step, (2) activation of a diisopropyl-fluorophosphate-sensitive esterase, (3) energy from glycolytic pathways, and (4) a secondary calcium-dependent step following which chemical-containing granules are released from the cell. The secretory process is modulated by cyclic nucleotides. Increased levels of cyclic adenosyl monophosphate (C'AMP) inhibit secretions; decreased levels enhance secretion. Evidence suggests that increased cyclic guanosyl monophosphate (C'GMP) increases antigen-induced secretion of mediators. Increased C'GMP results from stimulation of a cholinergic receptor by acetyl choline or one of its analogues. Increased C'AMP levels are achieved when adenosine triphosphate (ATP) is broken down by adenyl cyclase

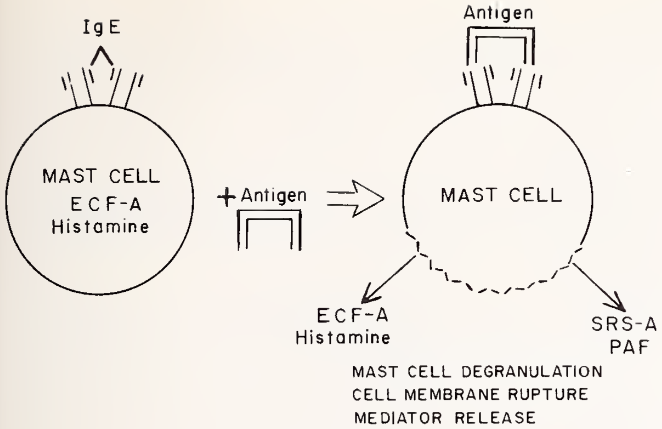

Figure 1
Antigen-antibody reaction with release of mediator.

to C'AMP or when phosphodiesterase degradation is blocked. In either event, the increase or decrease of mediator release is regulated by the levels of the nucleotides. Therapeutically, the physician is attempting, through various means, to increase C'AMP levels, which ultimately reduce mediator release and thereby reduce clinical symptomatology.

Chemical Mediators

Although the chemical and pharmacologic characteristics of the chemical mediators are not completely defined, much is known of their action. Table 1 describes and summarizes the important mediators released by the antigen-antibody reactions. Bronchospasm is produced by the action of these mediators on smooth muscle and clinical wheezing results. In certain instances of asthma, precipitating IgG antibodies have been implicated in the production of spasm occurring six to eight hours after exposure to antigen. This is the arthus-like or type III allergic reaction seen also in hypersensitivity pneumonitis, which responds well to corticosteroids and is inhibited by cromolyn sodium.

Neural Mechanisms

It was known by the early 20th century that ergot alkaloids and phenoxybenzamine prevented peripheral vasoconstriction of sympathomimetic amines. In 1948 Ahlquist[1] introduced the concept of alpha and beta receptors to account for this reaction. *Alpha receptors* stimulate contraction of smooth muscle, especially that of the arteries, veins, gastrointestinal tract, uterus, and bladder. Bronchoconstriction may also occur because alpha adrenergic blocking agents decrease experimentally induced bronchospasm. *Beta receptors* produce dilation of the vessels in skeletal muscle and also produce relaxation of bronchial and uterine muscle. Beta receptors are responsible for positive inotropic and chronotropic effects on the heart. Lands et al[2] in 1967 subdivided the beta receptors into beta^1 (principally cardiac) and beta^2 (principally bronchial) depending on their response to various adrenergic drugs and specific blocking agents. Certain drugs have both alpha and beta actions, that is, epinephrine; norepinephrine has mainly alpha; and others, such as isoproterenol, have beta^1 and beta^2 action. However, newer (some not clinically available) medications in all forms of administrations (oral, injectable and spray—terbutaline and albuterol) are mainly selective B_2 action.

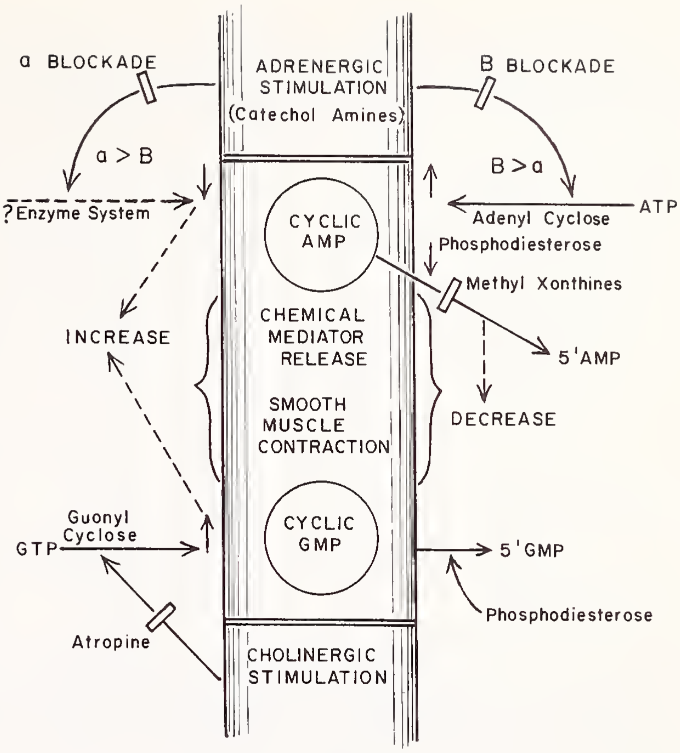

Figure 2
Summary of interaction among cyclic nucleotides, adrenergic and cholinergic mechanisms, and mediator release.

The role of parasympathetic receptors is less well documented and understood. However, blockade of antigen-induced asthma by surgical denervation of the lung, local anesthetic agents, and parasympatholytic drugs strongly suggests that similar reflexes are present in asthmatic patients. Vagal stimulation or treatment with cholinergic drugs will stimulate release of chemical mediators. Presently aerosol medications in the anticholinergic family are being studied and have shown great promise in decreasing the symptoms of asthma. The role of cyclic nucleotides, mediator release, and interplay with sympathomimetic and parasympathetic agents are summarized in Figure 2.

Clinical Manifestations

The diagnosis of bronchial asthma requires a thorough review of both the obvious and subtle signs and symptoms. Any patient with recurrent coughing at night or after exercise should be suspected of having asthma, especially since the latter may be a sign of exercise-induced bronchospasm. Some asthmatic patients have a genetic basis for their illness, and careful inquiry may reveal a family history of asthma, hay fever, eczema, or urticaria.

Table 1
CHEMICAL MEDIATORS

Mediator	*Tissue State*	*Chemical Characteristics*	*Biologic Properties*
Histamine	Preformed	Beta imidazolyl-ethylamine	Constricts bronchi and smooth muscle; increases vascular permeability
Slow reacting substance of anaphylaxis (SRS-A)	Precursor	Acidic sulfate ester	Constricts bronchi and smooth muscle; increases vascular permeability; degraded by arylsulfatase from eosinophils
Platelet activating factor (PAF)	Precursor	Phospholipid	Aggregation and degranulation of platelets
Prostaglandin	Precursor	C20 Hydroxy acid	Dilates and constricts blood vessels and airways
Bradykinin	Precursor	Nonapeptide	

It has been shown that the immune-response gene controlling IgE antibody response to ragweed antigen and permitting development of clinical hay fever and asthma caused by ragweed is closely linked to histocompatibility genes.

Many children have been diagnosed as having bronchiolitis or asthmatic bronchitis before they are recognized as having asthma. Recent studies have shown that bronchiolitis is followed by asthma in a high percent of children, and this fact is especially true if a strong family history is present. Pulmonary function tests have demonstrated the presence of appreciable disease in both large and small airways with only minimal signs and symptoms. Even after acute attacks have been treated and clinically abated, functional abnormalities in the conducting airways can persist despite the lack of clinical findings.

Needless to say, examination of the chest must be performed carefully and completely. Observations alone can be crucial; the use of accessory respiratory muscles, the presence of prolonged expiration, sternal retraction, and tracheal displacement all indicate respiratory distress with improper oxygenation and ventilation. Auscultation generally reveals prolonged expiration and wheezing. Care should be taken to evaluate the airflow. Good, noisy breath sounds are far less ominous than the tight quiet chest. Unilateral wheezing suggests the presence of foreign body or tumor. If possible the physician should try to determine if any of the common complications, such as pneumonia, pneumothorax, or atelectasis, are present. Percussion and palpation will often reveal the presence of pneumothorax or pneumomediastinum before radiographs are obtained. In the young patient, croup is characterized by inspiratory stridor contrasted to the expiratory distress of the asthmatic. Bronchiolitis often does not respond to epinephrine and can be an important distinguishing characteristic between the two entities. This same lack of response will occur when a foreign body is present and makes a chest radiograph mandatory. The differential diagnoses which must be considered in the asthmatic patient are listed in Table 2.

Table 2
DIFFERENTIAL DIAGNOSIS OF BRONCHIAL ASTHMA

Bronchial adenoma
Bronchiolitis
Chronic bronchitis
Cystic fibrosis
Emphysema
Foreign body
Hypersensitivity pneumonitis
Hyperventilation
Left ventricular failure
Mediastinal node compression
Pulmonary embolism

Laboratory Studies

Frequently the chest radiograph is within normal limits. Sometimes increased lung volume, atelectasis or peribronchial thickening is found. Stimulation of sensory receptors in the airways causes coughing, which is usually productive of increased amounts of mucus. Sputum may appear purulent because of increased eosinophil content, and it should be gram stained and cultured. Brown sputum suggests aspergillosis. The smear may reveal Curschmann's spirals (casts of small airways) or Charcot-Leyden crystals (breakdown products of eosinophils) characteristic of asthma. A complete blood cell count should be performed to determine if the number of neutrophils and eosinophils is increased. Sinus radiographs should be taken to rule out chronic sinusitis, which is frequently a precipitating and perpetuating factor. If the patient has had repeated infections associated with wheezing, cystic fibrosis and immunologic deficiency should be ruled out by sweat tests and quantitative immunoglobulin levels respectively. If steroid therapy is anticipated, a skin test should be carried out for tuberculosis. Baseline chemistries, such as glucose, blood urea nitrogen, cholesterol, transaminase, potassium, and sodium, should be performed together with urinalysis and electrocardiogram.

When the patient is seen for the first time, values for vital capacity, FEV_1, midexpiratory flow rate, and blood gases should be obtained. Subtle changes in blood gases can alert the physician to deterioration in the patient's status before it is clinically apparent. Needless to say, care of the patient should include skin tests for common inhalants, including the important pollens, dust, mold, animal dander, feathers, and some natural fibers, especially wool. The value of skin testing for foods is questionable, and subjecting the patient to such a large number of tests should be discouraged. Recently the radioimmunoassay (RAST) test has been available in limited antigens and might be useful in certain patients, that is, the very young patient and the patient with severe skin problems, such as eczema, where it could be difficult to ascertain the degree of positivity of skin tests. Since the correlation between intradermal tests and RAST tests is so high, the latter test should not be ordered routinely. The great advantage to the patient lies in the fact that the patient's blood is incubated with isotope-labeled IgE and washed, and through a series of steps specific amounts of IgE reacting to specific antigens can be measured. It obviates the need for many uncomfortable skin tests; it is free from interference by medication; and it is performed by drawing serum from the patient. Total IgE levels are seldom helpful to the clinician.

Treatment

There are probably as many regimens in the treatment of asthma as there are physicians treating the disease. However, with the advances made in immunology, which help us better understand the pharmacology of the drugs, a more rational program can be instituted. This, together with the availability of theophyllin levels, cromolyn sodium, aerosolized steroids, and more selective beta adrenergic drugs, have helped the practitioner provide a more normal existence for patients suffering from asthma.

Ideally, the management of the patient with allergic asthma is to avoid the offending antigen. Avoidance of some allergens (pollens in the air) can be difficult, but allergens can be minimized or sometimes totally eliminated. On the whole, house dust, mold, and animal dander are the commonest offenders. Since the greatest part of the average person's indoor time is spent in the bedroom, this room should be the major target for dust control. House dust mites have been found world-wide and are potent, allergenic components of house dust. Mites thrive in a warm, humid environment, and the nutrients are derived from scales of human dander. Beds are a large source of human dander. Studies have shown that damp dusting a plastic-covered mattress will markedly diminish the mite count and enhance clinical improvement. Elimination of epidermal exposure to animals is essential as it might lower the threshold of the patient's tolerance for other allergens.

Pharmacologic Approach To Therapy

Bronchodilating agents fall into three main categories:

1. Beta adrenergic agonists, such as isuprel and epinephrine, stimulate beta adrenergic receptors in bronchial smooth muscle increasing the levels of adenyl cyclase and thus the levels of C'AMP.
2. Methylxanthines, such as theophyllin, increase C'AMP by inhibiting phosphodiesterase, the enzyme which enhances C'AMP breakdown.
3. Corticosteroids, whose mode of action is unclear, probably facilitate the formation of C'AMP in the presence of adrenergic agonists. Relief of bronchospasm is achieved by reducing mucosal edema, secretions, and the inflammatory response.

Treatment of the average asthmatic patient usually begins with administration of either xanthine derivative or beta adrenergic compound, singularly or together or in compounds with combinations which contain a sedative as well.

Xanthine Therapy

Xanthine derivatives are the most effective asthmatic medications and can be administered by various routes (orally, intravenously, rectally, or intramuscularly), giving the physician a wide choice of administration depending on the urgency of the situation. Titration of the oral dose can be accomplished even allowing for variability of absorption and excretion of the drug. In prescribing this class of agents, the physician should be aware of the free xanthine contents available therapeutically since anhydrous theophyllin is 100% available for use, theophylline calcium salicylate only 50% free theophylline available, and theophylline sodium glycinate the same percentage as the latter.

Mode of Administration. Oral theophylline is available in uncoated tablets, capsules, and liquid. Peak concentration occurs within one to three hours and should be given every six hours to maintain adequate serum levels. Rectal theophylline is available in 250 and 500 mg suppositories but due to unpredictable absorption and proctitis, this route is rarely used by the author. When theophylline is administered in the form of an enema, Fleet 250 or 500 mg, or doses of 60 mg per milliliter of Somophyllin, it produces rapid relief of bronchos-

Table 3

PREPARATIONS OF THEOPHYLLINE

Route	*Generic Name*	*Theophylline, %*	*Trade Name*	*Available Dosage*	*Dose*
Oral	Anhydrous theophylline	100	Slo-phyllin capsules	125, 150, 250 mg	Every 8-12 hours
			Slo-phyllin tablets	100, 200 mg	Every 6-8 hours
			Slo-phyllin syrup	80 mg/15 cc; 150 mg/15cc	Every 8 hours
			Elixophyllin capsules	200 mg	Every 8 hours
			Elixophyllin elixir	80 mg/15 cc	Every 8 hours
			Aerolate capsules	65, 130, 260 mg	Every 8-12 hours
			Theolair tablets	125, 250 mg	Every 6 hours
	Aminophyllin	86	Many trade names	100-200 mg	Every 8-12 hours
	Oxytriphyllin	64	Choledyl tablets	100, 200 mg	Every 6 hours
Rectal	Monoethenolamine	75	Fleet theophyllin	250, 500 mg	Every 8-12 hours
	Aminophyllin	86	Suppositories	250, 500 mg	Every 8 hours
			Somophyllin rectal	300 mg/5 cc	Every 6-8 hours

Table 4

SYMPATHOMIMETIC OR BETA ADRENERGIC DRUGS

Generic Name	*Trade Name*	*Content*	*Recommended Dose*
Oral			
Ephedrine	Capsules	25, 50 mg	15-50 mg every 3-4 hours
	Slofedrin	30, 60 mg	30-60 mg every 8-12 hours
Metaproterenol	Alupent, Metaprel tablets	20 mg	10-20 mg every 6-8 hours
	Alupent, Metaprel syrup	10 mg/5 ml	10 mg every 6-8 hours
Terbutaline	Bricanyl tablets	2.5, 5 mg	2.5-5.0 mg every 6-8 hours
	Brethine	5 mg	2.5-5.0 mg every 6-8 hours
Parenteral			
Epinephrine	Adrenalin	1:1000	Adults—0.2-0.5 cc every 30-60 minutes x 3 Children—0.01 cc per kilogram every 30-60 minutes x 3; maximum, 0.3 cc per injection
Terbutaline	Bricanyl	1 mg per milliliter	0.25 cc every 30 minutes x 3

pasm second only to the intravenous route. *Intravenous theophylline* has a mean plasma half-life of 4.5 hours in adults and about 3.5 hours in children. For rapid relief of symptoms, an intravenous loading dose of aminophyllin, 6 mg per kilogram of body weight over a 30-minute period followed by about 1 mg per kilogram an hour, is needed to maintain therapeutic levels of about 10 to 20 mg per liter. With heart failure or liver disease, the maintenance dose should be reduced to 30% because it is metabolized in the liver, Some commonly used preparations of theophylline and its salts are listed in Table 3.

Beta Adrenergic Therapy

Beta adrenergic drugs, the prototype of which is isuprel, can be administered orally, by injection, or sublingually. Ephedrine often will complement xanthines and bring relief. However, effects of palpitation and detrusor relaxation may result, causing urinary retention and a slight rise in blood pressure and serum glucose. Newer beta adrenergic drugs with more beta^2 (pulmonary) than beta^1 (cardiac) effects have recently been released and have been very effective in therapy. Metaproterenol is available commercially as Metaprel and Alupent in spray, tablet, and liquid forms. Terbutaline (Bricanyl) is also available in injection and tablet form, and Brethine can be found in tablet form as well. A summary of these newer and older sympathomimetic or beta-adrenergic drugs is found in Table 4.

Since fixed combinations of these drugs do not allow the flexibility of dosage obvious from the tables, I rarely use that form of therapy. However, beta agonists and xanthines can be given alone, alternately, or together with excellent results.

Table 5
COMMONLY USED STEROIDS

	Equivalent Dose, mg	*Available Doses, mg*
Cortisone[1]	25.0	5.0, 10.0, 25.0
Hydrocortisone[2]	20.0	5.0, 10.0, 25.0
Prednisone	5.0	1.0, 2.5, 5.0, 10.0, 20.0, 50.0
Prednisolone	5.0	1.0, 2.5, 5.0
Methylprednisolone[2]	4.0	2.0, 4.0, 8.0, 16.0, 24.0, 32.0
Triamcinolone[1]	4.0	1.0, 2.0, 4.0, 8.0, 16.0
Dexamethasone[1,2]	0.75	0.25, 0.5, 0.75, 1.5
Betamethasone [1,2]	0.6	0.6

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[1] Available in liquid.
[2] Available intravenously.

Table 6
COMPLICATIONS OF CORTICOSTEROID THERAPY

Acne
Increased capillary fragility
Cataracts
Diabetes
Edema
Electrolyte imbalance
Growth retardation
Hypertension
Hypertrichosis
Infection
Muscle wasting
Osteoporosis
Pancreatitis
Peptic ulceration
Protein catabolism
Psychosis
Weight gain

Corticosteroid Therapy

When environmental precautions and xanthines given around the clock or sympathomimetics or both have failed, the physician must turn to corticosteroid derivatives. Usually a short course of tablets beginning with 8 a day and decreasing 1 a day will break the back of the siege and give the patient relief. If corticosteroids are required for any length of time, it is wise to prescribe an every other day schedule to avoid the side effects of steroids. Commonly used steroids are listed in Table 5.

Prednisone is usually the drug of choice since it has a short half-life, it can be used on alternate days with little or no adrenal suppression, and it is relatively inexpensive. Patients maintained on a suppressive dose (equivalent to more than 37.5 mg of cortisone) must be considered adrenal suppressed, and special precautions should be taken during stressful situations as those during surgery and during withdrawal of the drugs. Prolonged steroid therapy can lead to the serious complications listed in Table 6.

Cromolyn Sodium (Aarane, Intal)

After several years of trial in the United Kingdom and other countries cromolyn sodium was introduced in this country in June 1973. Used in capsule form it must be perforated and inhaled through a spinhaler into the lungs because gastrointestinal absorption is poor. Cromolyn sodium is a prophylactic medication. It inhibits the release of mast cell granules and stabilizes mast cell membrane and should be given only when the patient is not wheezing. This drug is effective in patients with difficulty during allergic asthma, exercised-induced asthma, and cold-induced bronchospasm, but it should not be used in the acute attack. Biologic activity continues for four to five hours and should be used three to four times a day to be therapeutically effective. However, many patients have found cromolyn sodium useful on a one-time basis if they anticipate an asthma-producing situation (exercise and exposure to animals).

Aerosol Corticosteroids

In July 1976 the Food and Drug Administration approved the release of beclomethasone dipropionate, an effective topical steroid in a freon propelled container. To some degree this drug revolutionized the therapy of asthma and has allowed a great number of patients to reduce, cease, or at least manage symptoms with steroids on an every other day schedule. Depending on whose series is followed, anywhere from 5 to 40% of patients may experience oral candidiasis on the usual dose—2 puffs (100 mcg) four times a day. The dose can often be lowered when effectiveness is determined, about a month after initiation of treatment.

Caution must be exercised in the steroid-dependent patient, since too quick a withdrawal can produce addisonion crisis and possible death. It must also be remembered that when oral steroids are tapered, previously suppressed symptoms of nasal polyps, allergic rhinitis, and eczema may flare. Undergoing investigation in this country at several centers is triamcinolone acetonide, another nonabsorbable steroid spray. These sprays, if given in large enough doses (1600 mcg in the case of beclomethasone dipropionate), will cause adrenal suppression.

Anticholinergic Drugs

Several aerosol compounds with anticholinergic properties have been found to be effective experimentally in the treatment of asthma. Generally, the onset of action is slower than the beta-adrenergic compounds, but in most instances duration of action is longer.

How to Cope with Treatment Failure in the Ambulatory Patient

When aerosols for the occasional wheezing patient, beta adrenergic medication, xanthines alone or in combination, or a short course of oral steroids fail to relieve the patient, the physician must consider prompt thorough treatment preferably in a hospital environment. Status asthmaticus is a preventable disease, and, it is said "the best treatment for status is its prevention." However, it does occur, and the main causes usually include:

1. *Infection*—Viral or inappropriately or inadequately treated bacterial infection.
2. *Overmedication*—The overzealous patient who uses too much adrenalin or uses the spray 30 to 40 times a day or the "helpful" physicians who prescribe some sedation for the nervous patient thus decreasing the cough reflex. While isoproterenol is an effective bronchodilator, 3-0 methylisoproterenol, a metabolite, is a weak beta blocker and can cause constriction of the bronchial tubes.
3. *Dehydration*—In the very sick, it can cause tenacious sputum and difficulty in raising it and thus contributes to hypoxemia. The febrile, hyperventilating patient is equally prone to this complication.
4. *Antigen*—While exposure to antigen is an important cause, removal of the offending agent usually relieves the symptoms, and it is usually not a severe problem in the production of status asthmaticus.

Signs and Symptoms of Status Asthmaticus

After the history, initial examination, and pertinent features to be looked for (as previously mentioned) have been completed, a radiographic examination, blood gases, routine blood tests, and sputum studies should be performed. Several significant abnormalities indicate a potentially serious situation; these include arterial pO_2, < 60 mm Hg; arterial pCO_2, > 40 mm Hg; cyanosis; disturbance of consciousness; electrocardiographic abnormality; hyperinflation of the lungs; pulse, > 130 beats; and pulsus paradoxicus. If any of these signs are present, the patient should be admitted to an intensive care unit where aminophyllin, 6 mg per kilogram of body weight initially, should be administered intravenously. This is lowered to 1 mg per kilogram of body weight each hour. Solu-Cortef, 200 to 400 mg every six to eight hours, is also given. Since Solu-Medrol is not compatible intravenously with aminophyllin over a long period of time, I prefer to use a bolus of 125 to 500 mg of Solu-Medrol every four to six hours until clinical improvement is apparent. Status asthmaticus is a medical emergency, which frequently can, but should not, end in death. No "cookbook" amounts of xanthine and steroids exist, and there is no place for "prn" orders at this time. Appropriate antibiotics should be used, electrocardiographic monitoring should be carried out for arrhythmias, which can occur in the hypoxemic heart, and electrolytes (particularly potassium) and blood gases should be measured serially.

If, despite these measures, the patient's condition deteriorates and carbon dioxide retention, disturbance of consciousness, exhaustion, pneumothorax, pneumomediastinum, or silent chest is present, orotracheal intubation and intermittent positive pressure breathing should be instituted until adequate steroids can control the situation.

During mechanical ventilation, curare-like agents and intravenously administered diazepam will suppress normal respiratory muscles and sedate the patient to allow volume-controlled respirators to overcome the usually severe airway resistance. The team approach of anesthesiologist, allergist, and internist or pediatrician will usually ensure a successful outcome. Monitoring of blood gases will help determine when extubation can be attempted—ideally in less than 48 hours. Intravenously administered corticosteroids can be changed to orally administered medications and gradually tapered to approximately half the dose each successive day, depending on the patient's response. Complications of status asthmaticus are arrhythmia, atelectasis, complications of intubation, congestive heart failure, hyperglycemia, hypertension, myocardial infarction, pneumothorax, pneumomediastinum, and psychosis, and these should be considered in the care of the patient. After the patient leaves the intensive care unit, the dose of steroids should be tapered (as stated), and maintenance therapy with beta adrenergic drugs or methylxanthines should be encouraged whenever necessary. At this point, treatment with cromolyn sodium or beclomethasone can be attempted and often is successful. Smoking should be forbidden, adequate environmental measures stressed, rest encouraged, and a gradual exercise program outlined. Adults should be encouraged to avoid aspirin-containing compounds and foods with yellow dye No. 5.

Comment

The effectiveness of antibiotics, both prophylactically and in the treatment of the patient with purulent sputum, is controversial. Frequently a bacterial element is present, especially in the sinuses, after viral infections, and individual tailoring of the response by the patient to the antibiotics should dictate which patient and under what circumstances antibiotics should be prescribed.

Research continues for newer and better aerosol steroids, beta adrenergic compounds, atropine-like medications, and, hopefully, use of prostaglandins. We have a large armamentarium of medications, which, if properly used in effective doses, can help the asthmatic patient live a relatively normal life.

The overall care of asthmatic patients must include avoidance of precipitating causes, proper antibiotic treatment, respiratory physiotherapy, and instructions to patients as to when they should contact their physician. Hesitation on the part of the patient or procrastination by the physician together with ineffective doses of medication spells disaster.

Any one of the many facets of asthma could take pages to cover. It is hoped that by highlighting certain aspects of this disease, physicians will become more comfortable in treating these patients, know why they are using certain drugs, and therefore be able to individualize the care of asthmatic patients who come into their office or consult them in the emergency ward.

REFERENCES

1. Ahlquist, RP: Study of the adrenotropic receptors. Am J Physiol 153:586-600, 1948
2. Lands, AM, Arnold, A, McAuliff, JP, et al: Differentiation of receptor systems activated by sympathomimetic amines. Nature 214:597-598, 1967

SUGGESTED READING

1. Stein, M (ed): New Directions in Asthma. Park Ridge, Ill, American College of Chest Physicians, 1975, 560 pp
2. Ellis, EF (ed): Pediatric Allergy. Pediatr Clin North Am 22:1-266 (Feb) 1975
3. Samter, M (ed): Allergy in Adults. Med Clin North Am 58:1-249 (Jan) 1974
4. Patterson, R (ed): Allergic Diseases. Diagnosis and Management. Philadelphia, J B Lippincott Co, 1972, 649 pp

Results of Elective Operation for Duodenal Ulcer

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ABSTRACT—The result of operations for two hundred and two patients who had elective operation for duodenal ulcer has been studied during a follow-up period of at least two years. The rate of recurrent ulceration was significantly higher after truncal vagotomy and an emptying procedure than it was after vagotomy combined with a limited gastric resection. Morbidity and mortality were not increased by adding resection on an elective basis. Truncal vagotomy and pyloroplasty should probably be reserved for emergency or high-risk situations.

The arguments about the best operation for patients with duodenal ulcer continue. Community hospital surgeons are properly conservative about accepting each new procedure, and they are reluctant to give up measures by which they have satisfied most of their patients. Two decades ago vagotomy and an emptying procedure was clearly shown to be a safer operation than subtotal gastrectomy for patients with duodenal ulcer, and this "lesser" procedure was adopted for most patients undergoing elective operations at Hartford Hospital. However, the reports of Jordan, Condon,[1] Herrington[2] and Postlethwait[3] suggested that recurrence of ulcer after vagotomy and an emptying procedure might reach as high as 12%. The recent report of Brooks et al of a 2% recurrence rate after elective vagotomy and an emptying procedure for duodenal ulcer was reassuring.[4] However, a majority of thoughtful students of operation for duodenal ulcer have suggested recently that either more operation (vagotomy plus resection—to reduce recurrence) or less operation (parietal cell vagotomy—to reduce complications) was desirable. Has vagotomy and an emptying procedure lost its place as the operation of choice for most patients with peptic ulcer?

Should we alter our practice? It seemed important to know where we've been before a decision was made to alter course. A retrospective review was therefore undertaken to evaluate results in terms of morbidity and mortality of elective operations for duodenal ulcer done at Hartford Hospital. Since most recurrences occur within two years of elective operation this review considered only those cases operated on prior to January 1, 1973.

Methods

A retrospective review was made of the medical records of all patients undergoing elective operation for duodenal ulcer for the four year period ending December 31, 1972. Patients undergoing emergency operation for hemorrhage or perforation were excluded, as were those patients undergoing vagotomy whose primary surgical problem was other than

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duodenal ulcer—e.g. hiatus hernia. Patients admitted with bleeding and/or obstruction were only included in this series if the obstruction had cleared or the bleeding had stopped prior to elective operation. Twenty-five staff surgeons and a large resident staff performed these operations in the teaching setting of a 935 bed University-affiliated community hospital. Postoperative complications were evaluated by chart review and by perusal of the separate reports developed by our weekly Morbidity and Mortality conference. Late follow-up was accomplished by chart review and/or contact with the patient's surgeon and/or referring physician. These latter contacts included letters and telephone calls when appropriate.

Recurrence was classified as "definite" when there was proof at subsequent operation or at endoscopy of recurrent peptic ulceration. Recurrence was classified as "probable" when the patient had melena and/or classic symptoms of duodenal ulcer with incomplete documentation of recurrent ulceration by barium contrast x-rays or endoscopy. Recurrence was classified as "possible" when there was recurrent epigastric distress of vague nature requiring some dietary or medical manipulation. All cases with any possibility of recurrence were included in this "possible" group. Resections, when done, were described by the operating surgeon as "hemigastrectomy" or "antrectomy" and these terms are used interchangably in this report, since no formal method of measuring the exact percentage of gastric resection nor of mapping out the antrum by biochemical methods was used. All vagotomies were truncal vagotomies.

Results

Two hundred and two patients underwent elective operation for duodenal ulcer during the four year period under review. Table I documents age, sex, duration of symptoms, and indications for operation in this group. The diagnosis of duodenal ulcer was confirmed in all patients with upper gastrointestinal barium contrast radiographs and occasionally by endoscopy. Standard gastric analysis with histamine or histalog stimulation was carried out in less than one quarter of the patients and was not used as a criterion for choice of operation. Table II documents the number and type of operations performed and Table III relates indication to the type of operation done. The average age of patients undergoing vagotomy and drainage procedure (VD) was 49.9 years and those undergoing vagotomy and resection (VR) was 48.6 years. The average number of operations per year was fifty, and there was no significant seasonal variation. Vagotomy and gastrojejunostomy was carried out in only four patients— in each instance for a specific technical reason because of the unsuitability of the pylorus and duodenum for pyloroplasty. Most surgeons used both types of operation, and their criteria for excluding or including resection were sufficiently variable to prevent any conclusions. Forty-three patients also had other concurrent operations done at the time of elective operation for duodenal ulcer., (cholecystectomy 20, hiatus hernia repair 13, appendectomy 5, other 5) but duodenal ulcer constituted the major indication for operation in each of these patients.

Table 1

ELECTIVE OPERATION FOR DUODENAL ULCER 1969-1972

PRE-OPERATIVE EVALUATION

	Patients	*Percentage*
Sex		
Male (Average Age - 49.4 yr.)	150	74%
Female (Average Age - 50.6 yr.)	52	26%
Admitting Manifestation of Ulcer Problem		
Intractability	125	63%
Bleeding	45	22%
Obstruction	32	15%
Duration of Symptoms		
Less than 12 months	15	7%
1 - 4 years	43	21%
5 - 9	54	27%
10 - 19 years	64	32%
More than 20 yrs.	26	13%

Table 2

ELECTIVE OPERATION FOR DUODENAL ULCER 1969-1972

OPERATIONS

	Patients		*Percentage of Total*
Vagotomy & Drainage	148		73%
Pyloroplasty	144		71%
Heineke - Mikulicz		116	
Finney		21	
Jaboulay		7	
Gastroenterostomy	4		2%
Vagotomy & Resection	54		27%
With Gastroduodenostomy	31		
With Gastrojejunostomy	23		

Table 3

ELECTIVE OPERATION FOR DUODENAL ULCER 1969-1972

INDICATIONS AND CHOICE OF OPERATIONS

Operative Indication	*Operation Done* (percentage)	
	V&D	*V&R*
Intractability	71	29
Bleeding	76	24
Obstruction	74	26

The average postoperative hospital stay was eleven days. Table IV lists postoperative complications which occurred in 32% of the patients. The complication rate was 31% after vagotomy and drainage and 34% after vagotomy and resection. The addition of a concommitent operation such as cholecystectomy did

Table 4

ELECTIVE OPERATION FOR DUODENAL ULCER 1969-1972

RECURRENT ULCER

	Vagotomy & Drainage	*Vagotomy & Resection*
Patients with follow-up	101	46
Recurrence		
"Definite"	3 (3%)	1 (2%)
"Probable"	5 (5%)	0
"Possible"	6 (6%)	0
Total	14 (14%)	1 (2%)

not effect the incidence of complications. There was one patient who required reoperation shortly after his initial procedure to control hemorrhage from the gastric suture line and another who required readmission and reoperation two months after the initial procedure because of delayed gastric emptying. Although four patients of those receiving antrectomy plus gastrojejunostomy had some drainage from the duodenal stump, in only one was this related to sepsis and a prolonged hospitalization. This patient eventually recovered.

The only death in the series occurred in a fifty-nine year old white male with hypertension and angina who underwent vagotomy and pyloroplasty without complication. He was discharged on the eighth postoperative day doing well only to be readmitted four days later with cerebrovascular insufficiency. He subsequently underwent bilateral carotid endartectomies and died a central nervous system death 28 days after pyloroplasty and vagotomy. Thus the overall mortality rate is 0.5% and this death was of uncertain relationship to the operation for ulcer. There were forty-five patients over 60 years of age in this series, thrity-seven of whom had vagotomy and drainage and eight of whom had vagotomy and resection without mortality. Morbidity in this group was not significantly different from the overall group.

Long term follow up was complete in one hundred and forty-seven patients (73%). There were two documented cases of bile gastritis both occurring in patients who had antrectomy plus gastrojejunostomy. There was no evidence of postoperative gallbladder or pancreatic dysfunction.

There were one hundred and one patients with vagotomy and drainage and forty-six with vagotomy and resection for whom complete follow-up information was obtained. Recurrence of peptic ulceration during the two to six year period of follow-up is documented in Table V. This table included only those patients with adequate follow-up information and thus is not complete for the whole series.

Three of four patients with "definite" recurrence have required reoperation at fourteen, fourteen and three months after their initial operation for duodenal ulcer. The only patient with a recurrence after vagotomy and resection was treated successfully by section of a missed posterior vagal trunk at three months and has subsequently done well. One patient with an endoscopically proven recurrence and five patients with "probable" recurrence have had pain and/or melena requiring further medical therapy. The six patients with a "possible" occurrence have not required rehospitalization, but their symptoms and their need for dietary and antacid therapy are suggestive of peptic disease. All patients with any suspicion of epigastric distress which might be related to a recurrent peptic diathesis are included in this latter category.

Table 5

ELECTIVE OPERATION FOR DUODENAL ULCER 1969-1972

Post - Operative Complications	*Patients*	*Percentage*
Wound Infection	5	2.5
Wound Dehiscence	1	0.5
Duodenal Stump Drainage	4	2
Myocardial Infarction	2	1
Pulmonary Embolus	6	3
Pneumonitis	20	10
Atelectasis	12	6
Urinary Tract Infection	7	3.5
Delayed Emptying	7	2
Suture Line Leak or Bleed	4	2
Splenectomy	0	0

Discussion

The rationale for moving away from subtotal gastrectomy as an elective operation for patients with duodenal ulcer was based upon the clearly superior "safety" record of the lesser operation. However, extensive experience with vagotomy combined with a smaller gastric resection has shown that, in the elective situation, this can be done with very low mortality and morbidity rates. This review has helped[2,3,5], to support the opinions of many that resection can be offered safely and that ulcer recurrence is largely eliminated when resection is combined with vagotomy. When the four years of this review are looked at individually, it is apparent that the percentage of resection and vagotomy of all elective operations done at this hospital for duodenal ulcer climbed gradually from 15 to 35% in the four years under review. The choice of primary procedure or the addition of additional operations such as cholecystectomy did not effect morbidity or mortality when done electively. We looked carefully for preoperative factors which might be associated with a higher rate of recurrence ulcer but no significant correlation with either the indications for operation or the duration of symptoms could be found. The possibility of incomplete vagotomy remains, and inexperience may correlate with this complication. Five surgeons were the attending surgeon on 46% of these patients, suggesting there was a limited number of vagotomies done by the other twenty attending surgeons whose cases are included, but no correlations could be found with recurrence and a particular surgeon or his choice of operation. The absence of incidental splenectomy was encouraging.

The recurrence rate of 14% after vagotomy and an emptying procedure seems too high to be acceptable when a more successful alternative operation can be done safely on an elective basis. Although the completeness of the vagotomy in the patients with recurrent disease remains undocumented by Hollander testing in this series, one may conclude that for whatever reason, the V & D is not as good an operation as V & R for the good risk patient undergoing elective operation for duodenal ulcer.

Is this high recurrence rate because the patients were treated medically for prolonged periods before any operation was recommended? We were surprised that two thirds of our patients had their ulcers for more than five years prior to elective operation, but we could find no correlation with unhappy result and the preoperative duration of symptoms. Eleven of the fifteen recurrences occurred in male patients while four occurred in female patients parallelling the overall incidence and suggesting that sex should not be a factor in choice of procedure.

Summary

Elective operation for duodenal ulcer was done in two hundred and two patients with one operative death. A satisfactory result was achieved in 89% of patients followed, but "recurrent" ulcer (using the broadest criteria) was seen in 14% of patients after vagotomy and drainage procedure and 2% of patients after vagotomy and resection. On the basis of this experience it would appear that resection should be added to vagotomy when duodenal ulcer operations are considered in good risk patients.

REFERENCES

1. Jordan, PH, Jr., and Condon, RE, A prospective evaluation of vagotomy-pyloroplasty and vagotomy-antrectomy for treatment of duodenal ulcer. Ann Surg 172:547 (Oct) 1970
2. Herrington, L: A twenty-five year experience with vagotomy-antrectomy. Arch Surg 106:469 (Apr) 1973
3. Postlewait, RW: Five year follow-up results of operations for duodenal ulcer. Surg Gyn Obstet 137:3 (Sept) 1973
4. Brooks, JR, Kia D, and Membrano, A: Truncal vagotomy and pyloroplasty for duodenal ulcer. Arch Surg 110:822 (July) 1975
5. Goligher, et al: Five to eight year results of truncal vagotomy and pyloroplasty for duodenal ulcer. Brit Med J 1:7, (Jan) 1972

The problem of antigenic drift in influenza immunization

This paper explores the problems encountered in preparing effective influenza vaccines, of which only inactivated (noninfective) types are licensed in the United States. The author discusses the strategy of immunization and experimental approaches for improvement of the vaccines. Problems have been the transience of immunity; the fact that they are more effective in stimulating circulating antibody response than antibody response in the upper respiratory tract; and local and systemic reactions (which have been reduced by purification). The main problems in immunization, however, stem from the nature of the disease itself. Influenza A virus is unique in its ability to mutate periodically to an extent enabling it to circumvent previous immunity. In this respect it is entirely different from other viral diseases for which successful vaccines have been found. It is known that minor shifts occur from one influenza season to the next but these are less difficult to deal with, so that about 50 percent protection is provided by vaccine against the immediate antecedent type. The real problem is the major shifts that develop without much advance warning about every decade. Kilbourne, E.D.: Influenza: the vaccines, Hosp. Prac. 11:65 (Nov.) 1976

The Delays in the Rehabilitation in Lower Extremity Amputees

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ABSTRACT—A group of 194 male patients aged 20-86 (mean 56.8 years) were studied to ascertain the delays in the various phases of rehabilitation. From amputation to the start of rehabilitation an average 5.3 weeks elapsed. From the start of therapy to ordering of a prosthesis an additional 5 weeks (mean) was required. Of 162 prostheses received 8.6 weeks (mean) were needed for fabrication. Once the prosthesis was received 10.1 weeks (mean), 8 weeks (median) then elapsed before the patient received the maximum training benefit. The elapsed time to this point was 31.3 weeks (average), 25 weeks (median), from the time of amputation.

Introduction

The goal of rehabilitation is to return the amputee as quickly as possible to the society from which he may have been temporarily separated. The purpose of this study was to ascertain where the problems lie in the normal progression of the rehabilitative process (studying the phases) from amputation to discharge.

Materials and Methods

A group of 194 male patients aged 20-86, average age 56.8, were the subjects of this study at a University affiliated Veterans Administration Hospital. All amputations were done by the resident staff under the supervision of board certified surgeons. The survey was retrospective and descriptive and subjected to a rigid statistical analysis. The phases were analyzed as follows:

1. Amputation to start of therapy.
2. Start of therapy to prosthetic order.
3. Prosthetic order to prosthetic receipt.
4. Prosthetic receipt to maximum benefit.
5. Maximum benefit to completion of therapy.
6. Completion of therapy to discharge.

Results

It required an average of 27 weeks (median 22 weeks) to achieve the maximum benefits of rehabilitation as determined by the rehabilitation team. Goals had been realistically set and achieved; however, nearly six months were required before the amputee was returned to society.

From amputation to the start of therapy the elapsed time averaged 5.3 weeks (median = 2). The interval from the beginning of therapy to ordering of the prosthesis averaged 5.0 weeks (median 6 weeks). From amputation to ordering of the prosthesis over 10 weeks had passed.

The 162 prostheses were received 8.6 weeks (median 8 weeks) after the order was placed. It now has taken some 18.9 weeks (median) from the day of amputation to receiving the prosthesis.

Once the prosthesis was received the patient attained the maximum benefits of rehabilitation after 10.1 weeks (median = 8) had elapsed. Dating back to the amputation, nearly 6 months have elapsed. Shortly thereafter, it was determined that the majority of patients had completed their therapy and were ready for discharge at 31.8 weeks (median = 25 weeks) from the date of amputation. From the time the prosthesis was received to discharge 20 weeks (median = 17 weeks) had elapsed. (Figure 1A and B). Further information on functional outcome, role of

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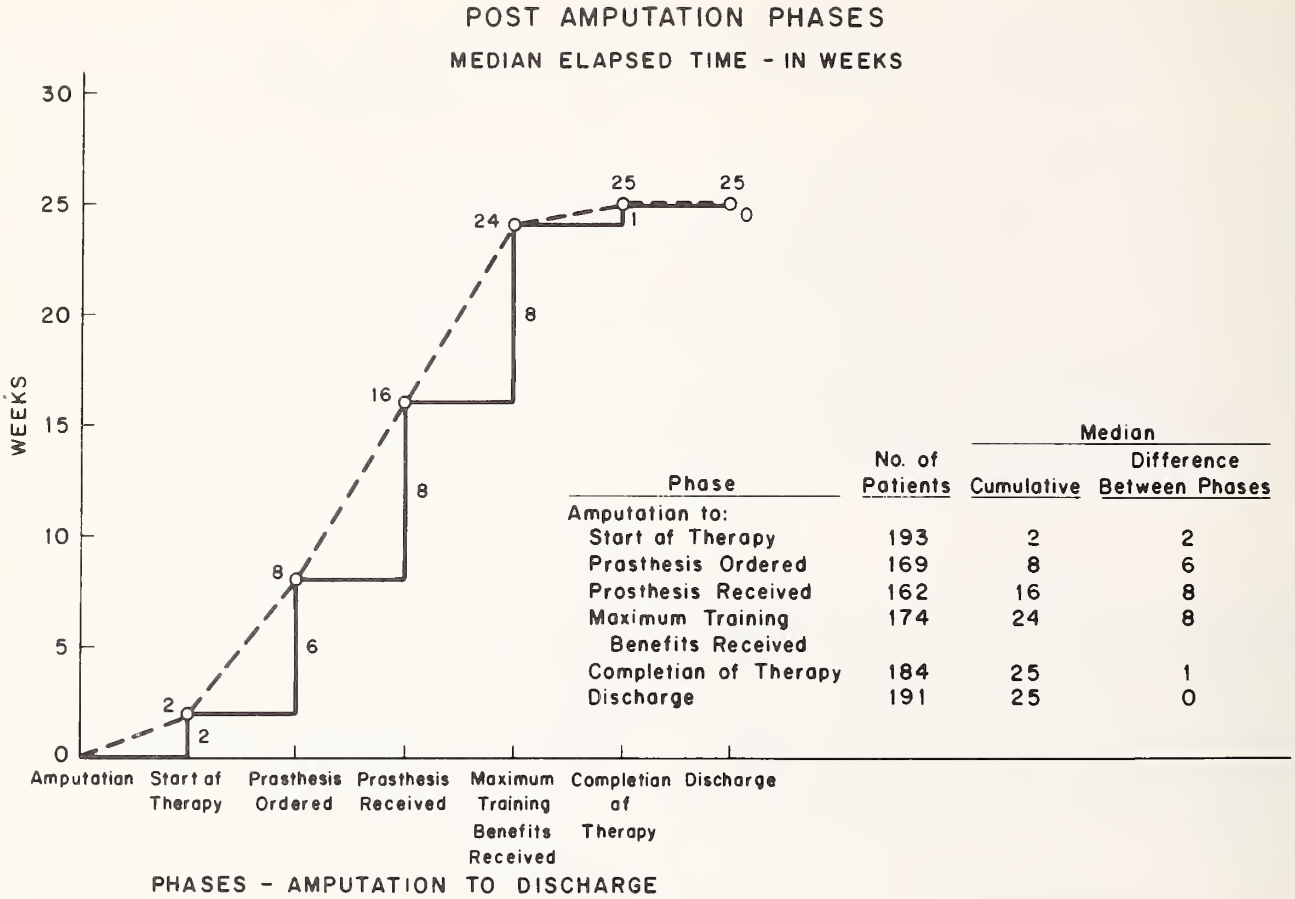
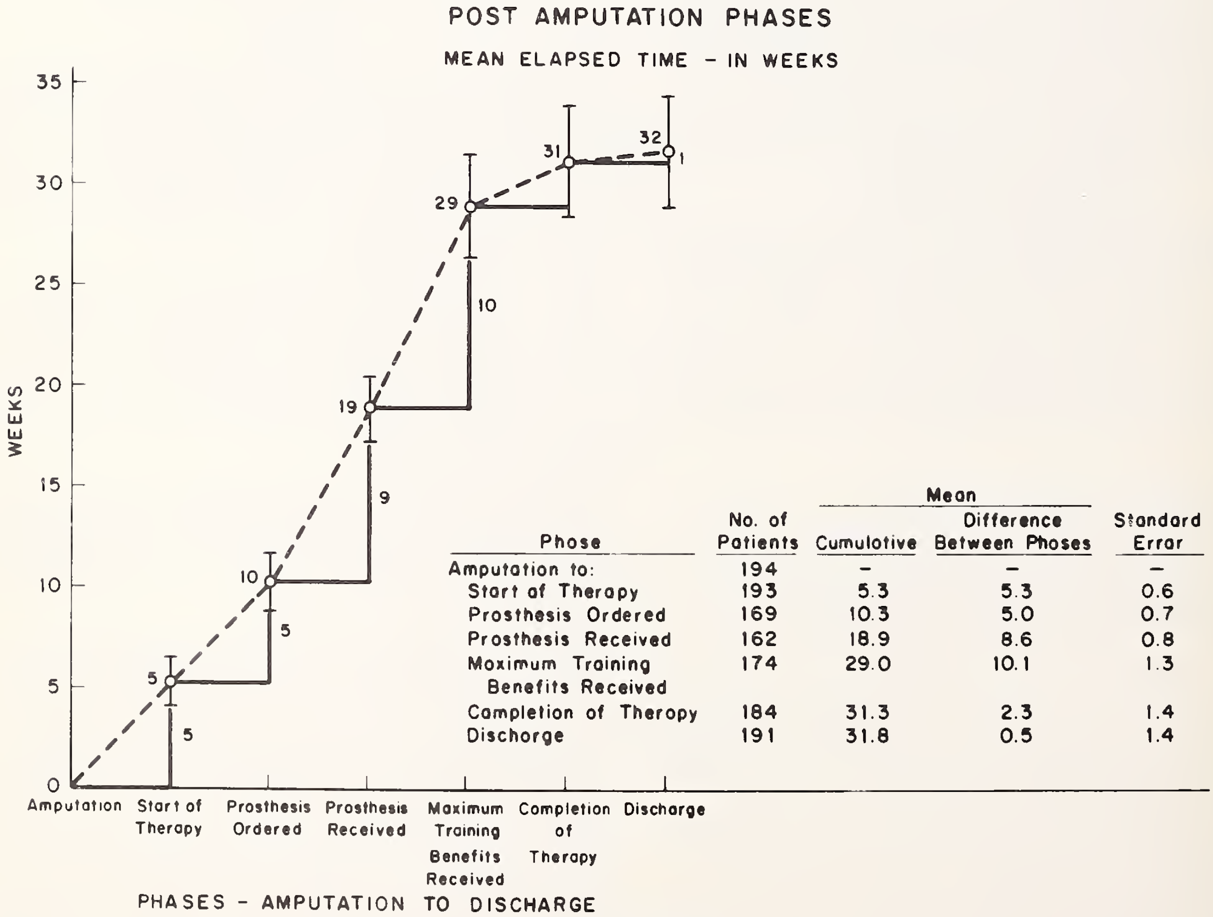


Phase	No. of Patients	Median Cumulative	Median Difference Between Phases
Amputation to:			
Start of Therapy	193	2	2
Prosthesis Ordered	169	8	6
Prosthesis Received	162	16	8
Maximum Training Benefits Received	174	24	8
Completion of Therapy	184	25	1
Discharge	191	25	0

Figure 1A



Phase	No. of Patients	Mean Cumulative	Mean Difference Between Phases	Standard Error
Amputation to:	194	–	–	–
Start of Therapy	193	5.3	5.3	0.6
Prosthesis Ordered	169	10.3	5.0	0.7
Prosthesis Received	162	18.9	8.6	0.8
Maximum Training Benefits Received	174	29.0	10.1	1.3
Completion of Therapy	184	31.3	2.3	1.4
Discharge	191	31.8	0.5	1.4

Figure 1B

medical complications delaying therapy, role of age may be found in other publications by the authors.[1, 2, 3]

Discussion

A number of intrinsic factors may delay rehabilitation of the lower extremity amputee: heart disease, stroke, pulmonary disease, neurospsychiatric disease, and diabetes mellitus. These factors are often difficult to control.[1] Extrinsic factors however, may be subject to amelioration. Twenty-nine weeks from amputation to maximum benefit is a long time in the life of man 56.8 years old.

In the first phase—amputation to start of therapy, using amputation as "zero" time the number should have a negative value. In this study the Department of Rehabilitation Medicine was usually consulted only after the fact, consequently a positive number. Except for very urgent cases a physiatrist or prosthetist could counsel with the surgeon as to the appropriate level of amputation, before, not after surgery. More often than not, the surgeon focuses on the amputation forgetting for the moment the requirements that will be placed on the amputation stump, the opposite limb and the upper extremities.

The one month plus required from beginning of therapy to prescription of prosthesis is reasonable and related to wound healing, edemas, etc. It is reasonable only if therapy has started at the zero point or before, but not if five weeks has elapsed between amputation and start of therapy. This time should be decreased and recent works with rigid dressings aim to shorten this period.[4] The problems with this approach, however, far outweigh the seemingly-small gains, which may still be available by use of the pneumatic splint in lieu of the rigid plaster dressing. Delays of significance should not be in phase two from start of therapy to prosthetic prescription, as they appear to be in this study some 5 weeks.

With phase three: Prescription to prosthesis receipt—more than two months elapsed. This seems an inordinately long period of time. The requirement of forms and regulations necessary for purchase authorization may account for part. Medical delays secondary to nonamputation complications can complicate and prolong this phase. A few such cases with prolonged medical holds on fabrication can modify group statistics considerably. Pressure on prosthetists due to increasing demands on a limited available group may be reflected here. The time consuming forms and regulations of Medicare and Medicaid will prolong this phase for the geriatric amputee and the same will be true of the more geriatric welfare patient.

Phase four: Prosthetic receipt to maximum benefit—required 10 weeks—for training in balance, gait and response to kinesthetic senses. There were wide variations within the group; those with medical complications requiring more time.

Phase five and six were short and were not periods of significant delay but slowly all the phases covered 31.8 weeks from amputation to discharge. It is too long a time.

A final factor deserves consideration, funding. It is obvious to anyone in rehabilitation the follow-up and period of hospitalization reported herein are appropriate to the Veterans Administration system but may not be totally applicable. It is not within the scope of this article to discuss the fiscal differences between the Veterans Administration and State funding.

REFERENCES

1. Kerstein, MD, Zimmer, H, Dugdale, F and Lerner, E: Associated diagnoses complicating rehabilitation after major lower extremity amputation. Angiology 25:536-547, 1974
2. Kerstein, MD, Zimmer, H, Dugdale, FE, Lerner, F: Associated diagnoses which complicate rehabilitation of the bilateral lower extremity amputee. SG&O. 149:875-876. 1975
3. Kerstein, MD, Zimmer, H, Dugdale, FE, Lerner, EA: Amputations of the lower extremity. A study of 194 cases. Arch of Phys Med and Rehabil. 55:454-459, 1974
4. Kerstein, MD: Utilization of an air splint after below knee amputation. Amer J of Phys Med 53:119-126, 1974

Post-Stenotic Dilatation of the Pulmonary Artery Simulating Central Bronchogenic Carcinoma

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ABSTRACT—Enlargement of the left hilum on a chest x-ray in an adult is a common radiological finding. A case of pulmonic stenosis is reported in which the left hilar enlargement simulated a bronchogenic carcinoma.

Pulmonic stenosis is a not uncommon congenital heart lesion,[1] which may present medically over a wide age range. Occasionally, the chest x-ray appearance may mimic that of carcinoma of the lung.

Case Report

Mr. V.L. is a 45-year-old, Caucasian male, who was presented to the Emergency Room because of a severe rectal pain and bleeding. He was admitted to the surgical service with a diagnosis of thrombosed internal hemorrhoids and placed on bed rest and pain medications in preparation for surgery. A routine pre-operative chest x-ray demonstrated a questionable left hilar mass which was interpreted as highly suspicious for carcinoma of the lung (Figure 1: a, b). A thoracic surgeon was requested to evaluate the patient for a possible bronchoscopy; he noted a systolic murmur and requested a cardiology consultation.

The patient had no knowledge of a heart murmur and denied dyspnea, chest pain or syncope. He had been a heavy cigarette smoker for more than 15 years. There was no family history of heart disease.

Physical examination revealed a well-nourished white male in no distress. Blood pressure was 120/70mmHg in both arms; the pulse was 60/min. and regular. No hypertelorism or moon facies was present. The jugular veins were flat with no pre-systolic pulsation. Cardiac examination revealed no thrills or palpable heave. There was a Grade I-II/VI ejection systolic murmur best heard in the second intercostal space at the left sternal border. An ejection click was audible over the pulmonic area. The first heart sound was normal; S2 was widely split, but varied with inspiration. Pulmonic closure intensity was normal. There was no diastolic

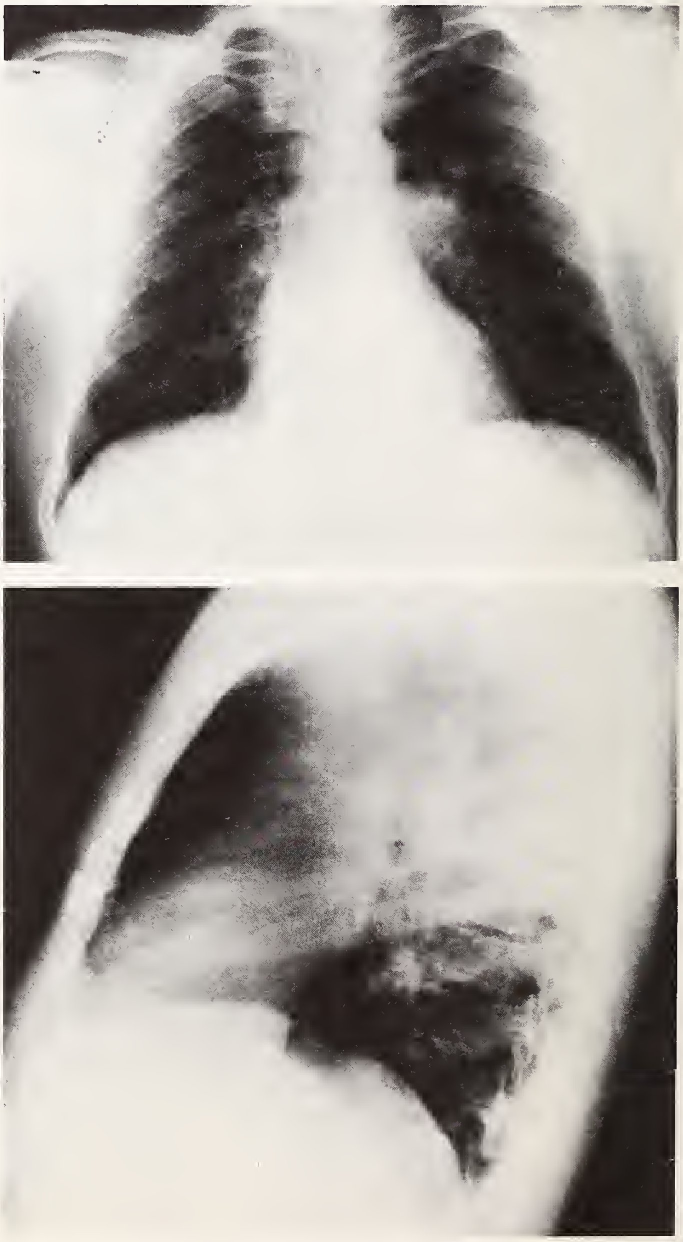

Figure 1: a, b
Frontal and lateral chest x-ray demonstrating a large left hilum. Note the absence of filling of the retrosternal space.

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murmur. The lungs were clear and the abdominal examination was negative. The peripheral pulses were equal and strong without prolongation of the upstroke time. The ECG was normal with a normal axis. Chest x-ray revealed a large left hilum. The lateral film did not show dilatation of the main pulmonary artery (Figure 1: a, b). Echocardiogram was normal, but failed to demonstrate the pulmonic valve.

Because of the cardiac findings, right heart catheterization with right ventricular angiography was performed. The right ventricular pressure was 44/4 mm Hg and the pulmonary artery pressure 24/8 mm Hg, demonstrating a mild systolic pressure gradient across the pulmonic valve of 20mm Hg. There was no left-to-right shunt by oxygen content determinations. The right ventricular angiogram demonstrated doming of the pulmonic valve with mild dilatation of the main pulmonary artery and more marked dilatation of the left pulmonary artery (Figure 2: a, b). The findings were consistent with mild pulmonic stenosis.

Discussion

Although pulmonic valvular stenosis is not an uncommon congenital heart lesion, it may be undiscovered for many years before coming to medical attention. Post-stenotic dilatation of the pulmonary artery is very common in valvular pulmonic stenosis and is thought to be due to:

a. The high velocity jet as blood is propelled through the stenotic orifice striking against a more slowly moving mass of blood distal to the stenosis resulting in the conversion of high kinetic energy into high potential energy or lateral pressure.[2]

b. Changes in the arterial distensibility.[3] The degree of obstruction, however, does not correlate well with the degree of pulmonary artery enlargement.[4]

The dilatation of the pulmonary artery could be confused with a hilar mass, and the differential diagnosis of a left hilar mass should include pulmonic stenosis with post-stenotic dilatation of the pulmonary artery. In this patient, the dilatation of the pulmonary artery was somewhat atypical in that it was mostly in the left branch, and the lateral film did not show main pulmonary artery dilatation. With the history of heavy smoking, and no previous knowledge of a heart murmur, the most likely radiological diagnosis would be bronchogenic carcinoma of the lung.

It is important to re-emphasize that pulmonic valvular stenosis should be considered when interpreting a chest x-ray which demonstrates a large hilum.

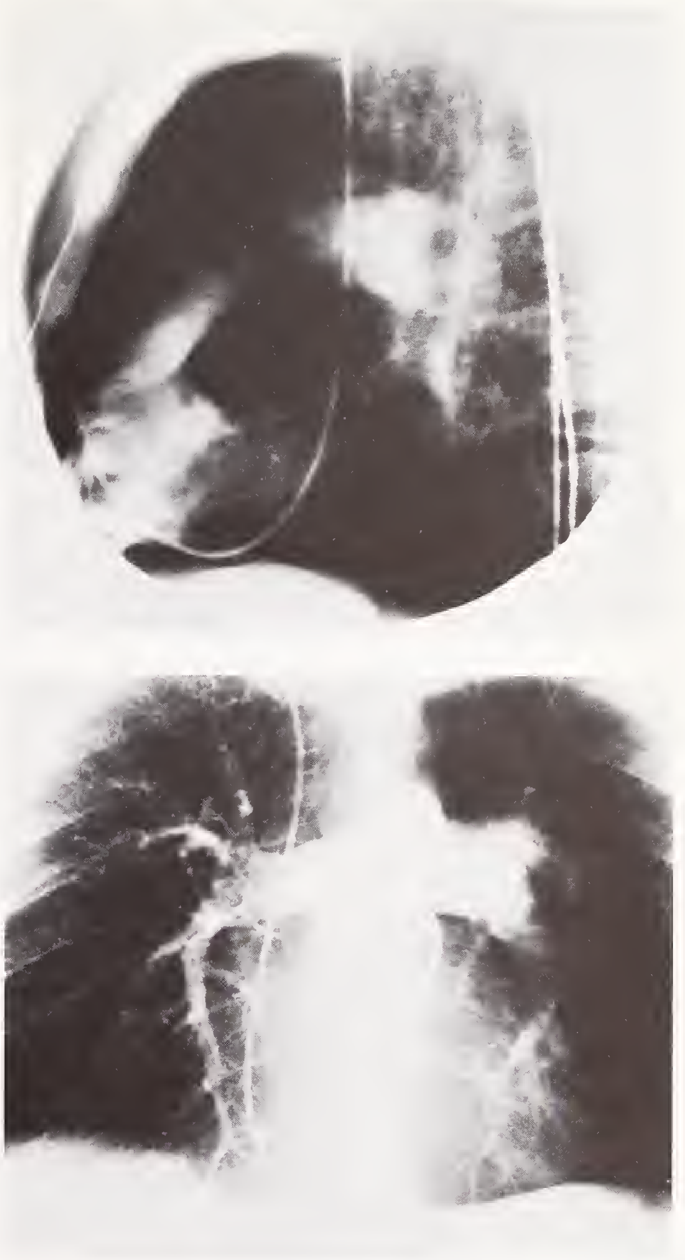

Figure 2: a, b
Frontal and lateral right ventricular angiogram, showing dilatation of the left pulmonary artery and thickened pulmonic valve.

REFERENCES

1. Nadas, AS: Pediatric Cardiology, Third edition, WB Saunders, 533, 1972
2. Holman, E: The obscure physiology of post-stenotic dilatation, J Thoracic surgery, 28: 109-133, 1956
3. Roach, MR: Changes in arterial distensibility as a cause of post-stenotic dilatation, American Journal of Cardiology 12: 802-815, 1963
4. C'Cruz, IA, Arcilla, RA, Augstsson, MH: Dilatation of the pulmonary trunk in stenosis of the pulmonary valve and of the pulmonary arteries in children, American Heart Journal, 68: 612-620, 1964

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Connecticut State Medical Society Professional Liability Insurance Program

A Report to the Society
August, 1977

AETNA LIFE & CASUALTY

Introduction

In past reports it has been indicated that the problem of obtaining Professional Liability insurance at a reasonable cost was one of national concern. During the past two years the malpractice crisis appears to have abated somewhat due to a moderation in the frequency and severity of malpractice claims. While this trend is encouraging, our cooperative efforts in trying to prevent malpractice incidents from happening and in controlling the severity of those that do occur must continue.

Working together especially in the area of Loss Control and Education, the following objectives will continue to be accomplished:

1. To provide an available and stable market.
2. To control and maintain premium costs at a reasonable level.

I. MARKETING - UNDERWRITING

As of May, 1977, 3,968 members of the Connecticut State Medical Society were enrolled in the CSMS Professional Liability Program—an increase of 268 during the past year. This represents 86.1% of the eligible membership.

Below are significant accomplishments that would not have been possible without the cooperation of the Connecticut State Medical Society.

Major Accomplishments 1971-1977

1. Stabilized for physicians and surgeons the Professional Liability insurance market in Connecticut.
2. Maintained Professional Liability premiums at one of the lowest levels in the country.
3. Paid more than $187,000 in dividends.
4. Minimized cancellation and nonrenewal activity. Under the terms of the CSMS Program, anyone who is denied coverage is fully advised of his rights relative to a hearing before your committee. Seven members have requested such hearings. In four cases the AEtna's position was sustained. In three cases, the AEtna agreed to the recommendation of the Committee to continue the doctors in the CSMS Program.
5. Agreed to continue CSMS/AEtna Program to October 1, 1981.
6. Enlarged the rating classification plan for physicians and surgeons from 18 general classifications to more than 100 specific classifications. This enlargement will improve experience statistics, which will be of assistance for loss control and education purposes, and the premium for the program will be charged more equitably among the members.
7. Continued to offer high limits of coverage (over $5,000,000) to each member at a reasonable cost.

Program Change for 1977-1978

The "partnership" charge, which is the premium charged for providing professional liability coverage to a partnership, and to the individual members of a partnership for the acts of another partner, is being reduced from the current 10% of premium to 5% of premium. This same reduction will also apply to members of professional corporations and associations.

II. LOSS CONTROL AND EDUCATION

The Loss Control and Education aspect of the CSMS program continues to be its most important function. With the strong commitment of the Society membership, physicians are realizing that only they can reverse the escalation of malpractice claims against them.

Claim Activity

A review of loss data is shown below:

As of	*Number of Arising Claims*	*Cumulative Number of Arising Claims*	*Cumulative Dollar Reserves*
January 1, 1975	137	301	$2,204,577
January 1, 1976	253	554	4,294,103
January 1, 1977	229	783	6,884,810
July 1, 1977	137	920	8,095,832

In the 1976 Annual Report we indicated that 176 suits were open under the Program. Presently there are 276 suits pending.

District Claim Review Panels

The Panels continue to be the most effective educational tool. They expose physicians to the actual facts in medical management which have led to lawsuits. Using the expertise of over 500 doctors, they are of great value to AEtna's Claim Department and Counsel in the evaluation and disposition of cases.

With the cooperation of the Chairmen, the four panels are presently in the process of changing their members. In the past year, through the use of the Loss Control Committee in the 35 Connecticut community hospitals insured by AEtna, extension of the panels to hospitals has been started. These panels, which include both doctors and hospital representatives, have been effective. Review of joint cases against physicians and hospitals will receive new emphasis in the coming year.

The CSMS panels have reviewed 70 cases during the last year. To date, 188 cases have been reviewed with the recommendation to settle approximately half of them. 84 cases have been disposed of by trial, settlement, or withdrawal of action.

Educational Activity

The CSMS Program's Account Supervisor is working with the AEtna's Hospital Loss Control and Education Team to supply educational material to individual Connecticut hospitals on the cause and prevention of medical malpractice. This activity will make the CSMS Program more meaningful and enable us to reach a greater number of physicians.

Five new videotapes were produced this year. These deal with such subjects as informed consent, medication errors, properly identifying patients, areas of vulnerability in the hospital, and the emergency room. These tapes supplement the original six tapes and are available for your use.

AEtna plans to increase the development and use of educational material in an effort to control losses and thus reduce the cost of Professional Liability insurance to its insured physicians.

Legislation

Recognizing that the malpractice problem has both insurance and social aspects, the AEtna continues to work closely with your Society in the legislative area. The CSMS Professional Liability Committee and its lobbyist, in cooperation with AEtna's Law Department, reintroduced the balance of the legislative package rejected in the previous session of the Connecticut General Assembly. Attempts to extend the Statute of Limitations were struck down, and the "ad damnum clause" has been finally eliminated. Failing once again to get passage of bills on Collateral Source Payments and Installment Payments, we will try again in the next session. On the second try, the bill on Voluntary and Non-Binding Screening Panels was passed.

In summary, all objectionable malpractice bills were defeated, and two key elements of the CSMS malpractice reform package are passed. Two other important elements were advanced, but must wait for another session for implementation.

Conclusion

Most important, the Loss Control and Education aspect of the Program has strengthened the relationship between AEtna and CSMS. And we firmly believe we have developed a better mutual understanding of the long range plan and objective which will have an important effect on our combined operation and success in the future.

III. ACTUARIAL (PREMIUM COSTS)

During the past several years rates in Connecticut for Physicians' and Surgeons' Professional Liability insurance have increased substantially due to the dramatic increase in both the number of claims per doctor (frequency) and the average value of those claims (severity). While we still expect both frequency and severity of claims to increase, the last 12 - 18 months indicate a moderation in the rate at which these factors are increasing.

Rates for the Professional Liability Insurance Package are established in three increments:

Exhibit I
PACKAGE PREMIUMS*
CONNECTICUT PHYSICIANS AND SURGEONS

	Effective Date						*% Change 10/1/76 to 10/1/77*
Class	*10/1/71*	*10/1/73*	*10/1/74*	*10/1/75*	*10/1/76*	*10/1/77*	
I	445	448	678	913	1021	1023	+0.2%
II	716	712	1148	1579	1754	1714	-2.3
III	1568	1499	2033	2872	3173	3239	+2.1
IV	2059	1968	2678	3800	4192	4173	-0.5
V	2549	2436	3323	4728	5212	5189	-0.4
VI			3967	5656	6231	6203	-0.4
VIII			5258	7511	8270	8231	-0.5

*Includes Primary Professional Liability, SCOPE Personal and Professional, and Premises Liability.

1. Basic Limits - $25,000 per claim/$75,000 aggregate
2. Primary Limits - $100,000/$300,000 for Physicians
   $250,000/$500,000 for Surgeons
3. SCOPE - $1,000,000/$1,000,000 above Primary Limits

While the current total package premium for these coverages is adequate, the distribution of rates by increment of coverage will be changed - rates for Basic Limits and SCOPE will be reduced substantially; rate for Primary Limits will be increased. The result is the total Package Premium will be basically unchanged for the coming account year.

Exhibit I shows total package premium for each rating class, with each class showing a small increase or decrease from last year. For all classes combined, revenue from package premiums will not change. When combined with the reduction of the Partnership Surcharge, total premium from CSMS members will decrease approximately 1½ to 2 percent.

Frequency/Severity Trend

As previously mentioned the last 12 to 18 months have shown a moderation in the rate of increase in both the number and size of claims. The percentage increase for the combination of these components in this year's calculations is 14.4% as compared to 21.3% last year and 23.5% the previous year.

Exhibit II is a graphical demonstration of the components of the premium dollar.

Exhibit II
1977 CSMS PROVISIONS FOR LOSS AND EXPENSE

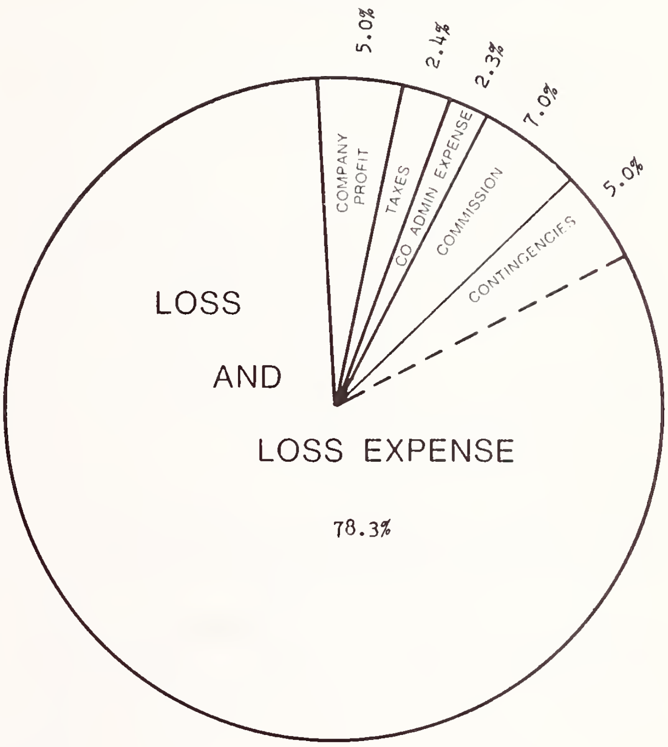


Exhibit III
Figure 1
CSMS DIVIDEND CALCULATION

	As of:	*66 mos.* *1971*	*54 mos.* *1972*	*42 mos.* *1973*	*30 mos.* *1974*	*18 mos.* *1975*	*1971-1975* *Cumulative*
I. Collected Premium		1,684,874	2,303,432	2,616,894	4,837,713	7,054,420	18,497,333
a. Loss Provision	Dollars	1,096,853	1,499,534	1,711,449	3,110,649	4,860,495	12,728,980
	%	65.1	65.1	65.4	64.3	68.9	66.4
b. Retention Provision	Dollars	588,021	803,898	905,445	1,727,064	2,193,925	6,218,350
	%	34.9	34.9	34.6	35.7	31.1	33.6
II. Loss Costs							
a. Reported	%	73.1	99.2	64.6	31.5	10.7	40.5
b. Actuarial Reserves	%	10.7	17.0	33.5	42.3	39.0	33.8
c. Loss Adjustment Expense	%	7.2	10.8	9.2	6.7	4.6	6.8
d. Total	%	91.0	127.0	107.3	80.4	54.3	81.0
	Dollars	1,533,349	2,925,711	2,806,966	3,891,743	3,833,788	14,991,557
III. Retention Costs	Dollars	424,588	587,376	662,074	1,281,994	1,523,754	4,479,786
	%	25.2	25.5	25.3	26.5	21.6	24.2
IV. Savings							
a. Loss (Ia - IId)	Dollars	(436,496)	(1,426,177)	(1,095,517)	(781,094)	1,026,707	(2,712,577)
	%	(25.9)	(61.9)	(41.9)	(16.1)	14.6	(14.7)
b. Retention (Ib - III)	Dollars	163,433	216,522	243,371	445,070	670,171	1,738,567
	%	9.7	9.4	9.3	9.2	9.5	9.4
V. Insurance Charge		0	0	0	0	0	0
VI. Previous Dividend Payments		121,363	66,238	0	0	0	187,601
VII. Dividend Due This Statement							0

Permissible Loss Ratio

For the past several years the expense portion of the premium dollar has been significantly reduced. The expense provisions for the coming year will be reduced again.

The expense and loss provisions for the last 3 years and for the next renewal are:

	1974	*1975*	*1976*	*1977*
Premium Dollar	100.0%	100.0%	100.0%	100.0%
Provision for Loss and Loss Expense	64.3	68.9	73.1	78.3
Company Administration and Profit	35.7	31.1	26.9	21.7

A substantial portion of this year's expense reduction is a decrease in the contingency provision from 8% to 5%. This means that about *83.3%* of the premium dollar is available to pay losses or return expense savings.

Due to the adverse loss experience of the first four account years, there will be no dividend this year. Exhibit III, Figure 1, shows the calculations of savings in the loss and expense area. While the 1975 Account Year was a very favorable year, the cumulative results of the first four account years offset the latest years savings.

Exhibit III (Figures 2 - 6) is a graphic illustration of the actual loss experience of each Account Year and portrays the loss development of each account year.

■ Reported

▨ Unallocated Loss Adjustment Expense

☐ Actuarial Reserve, incl. IBNR

IBNR* - Reserves established for claims that have been "Incurred But Not Reported" to the insurance company.

Exhibit III
Figure 2

CONNECTICUT - ACCOUNT YEAR 1971

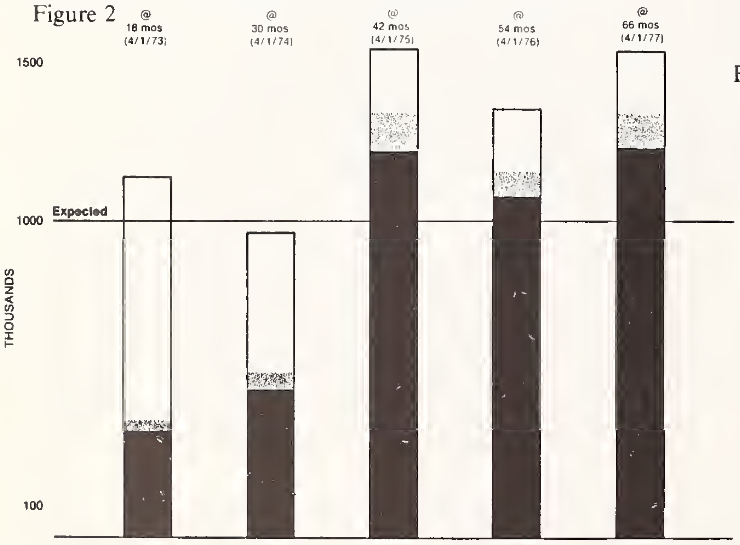


Exhibit III
Figure 3

CONNECTICUT - ACCOUNT YEAR 1972

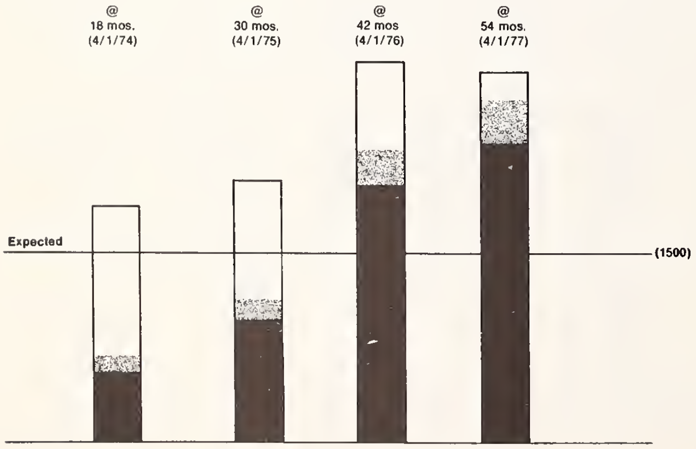


Exhibit III
Figure 4

CONNECTICUT - ACCOUNT YEAR 1973

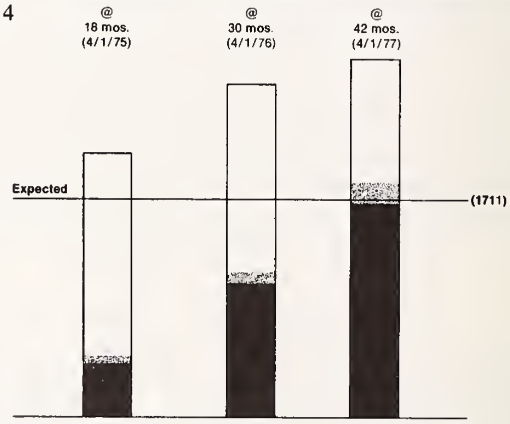


Exhibit III
Figure 5

CONNECTICUT - ACCOUNT YEAR 1974

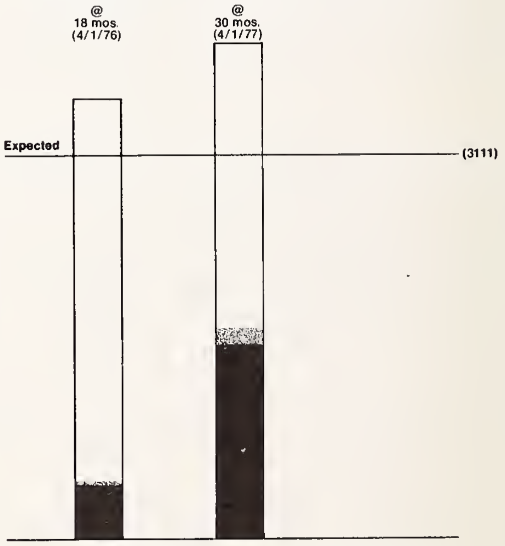
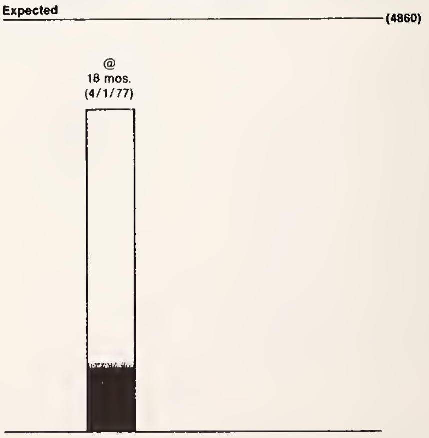


Exhibit III
Figure 6

CONNECTICUT - ACCOUNT YEAR 1975



MEDICAL GRAND ROUNDS FROM THE DEMPSEY HOSPITAL
OF THE UNIVERSITY OF CONNECTICUT
Irwin H. Lepow, M.D., Editor

Cost, Quality, and Medical Education

ROBERT U. MASSEY, M.D.

Cost, Quality, and Medical Education

Today is Ash Wednesday, a day in the Christian calendar which marks the beginning of the penitential season of Lent. This is an especially appropriate day for presenting the kind of grand rounds which I have in mind, and may in part justify the topic. In the office of the Book of Common Prayer, among the other prayers marking the day, is this plea:

"Spare thy people, good Lord, spare them, And let not thine heritage be brought to confusion."

In the manner of grand rounds, I shall present three cases by way of illustration of the confusion into which we may already have been brought.

The first patient is a 56-year-old female who had had a sudden onset of burning chest and neck pain radiating into both arms to the elbows, and into her lower jaw. This pain was accompanied by weakness, moderate shortness of breath, and slight nausea. It disappeared after thirty minutes of rest, and recurred five hours later, about two hours after a meal. This time she felt pounding in the chest, counted her own pulse and thought it was about 40/minute. The next morning after a restless night, she called a physician, and subsequently was taken to the hospital. An electrocardiogram showed evidence of posterior wall ischemia; the following day there was mild fever, leucocytosis, and elevated serum enzymes which declined to normal in two days. The heart rate and rhythm were monitored for five days; the patient remained in the hospital for another week. There was no more pain; she returned to work approximately four weeks after the episode. She has since stopped smoking, has limited her intake of saturated fats and high cholesterol foods, and has moderately increased her exercise. Except for occasional two or three minute episodes of chest pain, sometimes associated with cold and fatigue, but usually occurring unpredictably, she has remained asymptomatic for two and one half years.

The second patient is a 46-year-old male executive who had experienced several episodes of chest pain during a two month period while jogging in the early morning. This discomfort worried him, but he persuaded himself that it was probably muscular. A few days after one of these episodes he had pain while at work which lasted almost half an hour, and was associated with nausea and sweating. He called his physician who admitted him immediately to the hospital coronary care unit. He was scheduled for coronary angiography the following day, although the electrocardiogram, except for an occasional premature ventricular contraction, was unchanged from one which had been recorded a year earlier. The coronary angiogram showed a normal left coronary system, including both the circumflex and the anterior descending arteries. The right coronary, however, was diffusely narrowed, in one area showing 50 percent reduction in the diameter of the lumen. Echocardiographic studies suggested a mitral valve prolapse, which had also been suggested by the angiographic study. The patient remained in the coronary care unit for five days. There were no electrocardiographic or other evidences of infarction. He was discharged two weeks later and continues to use long acting nitrates, although apparently he has not had a recurrence of pain. His physician arranged for him to see a psychiatrist because of anxiety and moderate depression; he has been in therapy for two years, and takes various combinations of mild sedative or tranquillizing medications. He has changed his job to one with less responsibility and less income. He consults his internist monthly and has frequent electrocardiograms and blood tests for cholesterol and triglycerides.

The third patient is a 60-year-old male who had had recurring episodes of mild substernal pain for several

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ROBERT U. MASSEY, M.D., Professor of Medicine, and Dean, University of Connecticut School of Medicine.

Presented in Farmington on February 23, 1977.

years accompanied by no other symptoms, and apparently relieved by walking about or by drinking water. He had had electrocardiograms on several occasions, all of which had been normal. A barium swallow showed a large hiatus hernia and his physician assured him that his discomfort was caused by this abnormality. One day he had an episode of more severe pain after shoveling snow. This recurred in the evening, and again the following morning, this time radiating to his jaw and left arm. He arranged to see his physician that day, and had the pain again while driving to his physician's office. An electrocardiogram showed no change, but because the patient appeared both very ill and very anxious, his physician admitted him to the hospital. After another electrocardiogram and blood tests, arrangements were made for emergency coronary angiography, which showed more than 50 percent narrowing of the proximal left anterior descending artery. The patient was scheduled immediately for coronary artery bypass surgery to prevent a myocardial infarction which was believed to be imminent. He recovered uneventfully, was discharged in four weeks and returned to work eight weeks later. He continues to have mild chest pain as he had had prior to surgery. This is promptly relieved by nitroglycerin. Subsequent coronary angiography has shown the venous segment to be occluded.

While these are three hypothetical cases, they are made up of pieces of reality. Each one represents accepted medical practice; the outcome was good in each instance, the patients are living and working; the process was each time logical, and the patients each believed that care had been excellent. In the first instance the cost, excluding loss of time from work, was about $2,000. In the second about $5,000, and in the third about $20,000. There are several statements which may be made about those costs. One is that the patients were almost unaware of them since they were paid by health insurance; the decisions which determine the working of the market did not take place here. Second, the purchasers of the services did not generate the demands for those services; the services were rendered because physicians requested them in the name of the patient but not at the patient's instigation.

Coronary angiography is becoming a common diagnostic procedure. It was estimated in 1974 that 600 hospitals were doing 300,000 coronary arteriograms each year, and that this would double in a year or two. In good laboratories the mortality is 0.2 percent. The annual cost of coronary angiography is now probably in excess of $200,000,000. If the mortality rate of 0.2 percent were to apply nationwide, which it does not, there would be about 1,000 deaths annually attributable to this procedure. In 1971, 20,000 coronary artery bypass procedures were performed at a cost of over $200,000,000. At least twice that many were done last year at a cost which possibly approached $800,000,000. Without more data, these figures admit of no conclusions, nor do the cases which I have cited. Our present treatment of coronary artery disease is an example of Lewis Thomas's concept of the half way technology: impressive, technically elegant, expensive, and assumed to be effective. Another characteristic of half way technologies, Dr. Thomas has implied, is that they are not going anywhere. No new insights will be gained by doing another 500,000 coronary arteriograms; no new understanding will come from an improvement in the technology. We may say that $200,000,000 or $800,000,000 is a lot of money which should be spent on patient education, or on cardiovascular research, or on food for India. We might say that we should rely more on the history and physical examination, and on non-invasive techniques for diagnosing and assessing coronary artery disease. We could on the other hand say that everyone ought to have access to the latest and best medical technology, without regard to cost, because only in that way can we bring the advances of the laboratory to everyone equally, and gain the maximum advantage from the work of medical science. We can argue that this access is a right, and that ethically there can be no limit to the cost/benefit ratio. But the figures and the cases I have cited will not help to resolve these questions. We may, as a profession, stop asking the questions because we do not know how to design experiments to get the answers. The public, however, will continue to ask, and somehow decisions about our expensive, and some not so expensive, half-way technologies will be made.

In the past we have believed that we make decisions about diagnostic and therapeutic procedures based upon what we call scientific evidence. In some instances, especially where the high technology of medicine had been reached, this was not difficult. No one is concerned about examining the evidence for the efficacy of poliomyelitis vaccine. We are satisfied that in myxedema, thyroxin is the proper treatment. We accept the importance of making a bacteriologic diagnosis in infectious diseases and in treating the disease with the appropriate antibiotic. We are less certain about the best way to treat peptic ulcer, or diabetes mellitus, or carcinoma of the breast, but we believe we shall get the answers. Someone may design the critical experiment or, more likely, we shall finally have incontrovertible data. Meanwhile we shall have to decide on some other basis.

People make defensible decisions in other ways, leaving out non-rational decisions based upon hunches, taste, or unexamined tradition.

There are many ways of classifying the decisions which we all make every day. Physicians, like scientists, generally think in a logical fashion, moving, as Bacon proposed, from induction to deduction and back again. Legislators go about making decisions in a different way; they are interested in only some facts, are worried about what people might be thinking just then, and generally seem more concerned with appearances than with reality. When I give the University attorney a problem, he thinks about the law, and seems less concerned about the scientific or medical merits of the matter. This means that decisions about health policy, whether involving quality of care, costs, national health insurance, building new facilities, setting up a catheterization laboratory, or buying a scanner, are likely to be made in many different ways, and sometime inappropriate ways. We need to understand the ways others use to make decisions, and to recognize that some ways are better for solving some problems than for others. One way of classifying decision making might be this:

1. *Ethical-moral.* Some would say religious, as Tillich's concept of *ultimate concern.* Some people would include the law in this category. I am not sure. Clearly the law rests upon an ethical foundation, but laws are often made upon other than ethical considerations.

2. *Rational-scientific.* Almost all decisions made by investigators doing research are made on this basis. Most decisions made by physicians ought to rest on this basis, and probably do. Airline pilots had better use this method of decision making most of the time.

3. *Economic.* This has to do with how scarce resources are apportioned. Most of the concern over how to provide health care involves rationing services, people, equipment, and supplies that are limited. Economic decisions have to do with inputs and outputs, and in pure form have nothing to do with ethical-moral or value considerations. However, the economist does not object to having someone insert a value judgment into his equations, so long as it is viewed as just another factor.

4. *Political.* Decisions are made for reasons of power. In one instance power might be determined by numbers of votes, in another by money, or in a third by knowledge, and ultimately by force. Most politicians are concerned with their own power, which rests upon public opinion and votes, and therefore, they deal in appearances more often than in reality as we perceive reality. However, they would term these, to us, ephemeral manifestations of public opinion as the real world, and declare that they are the realists, and that we are the dreamers.

Let us get back to our three cases. We all recognize that there are and always have been controversies in medicine. Certainly in the prevention, diagnosis and management of atherosclerotic heart disease there is anything but universal agreement. Coronary bypass surgery is viewed by many cardiologists as experimental, although no experiment has been done. In 1957 Friedberg[1] reviewed recent advances in the management of coronary heart disease. He cited evidence that induced hypothyroidism was effective in the treatment of angina 75 percent of the time. He noted that cardiopericardiopexy carried a mortality of no more than 5-10 percent, and provided pain relief in 75-80 percent of cases. These are similar to the figures claimed for bypass procedures. Internal mammary artery implantation carried less mortality but provided pain relief in only 60 percent of cases. There was no question in Friedberg's mind that anticoagulation reduced mortality. Long-term anticoagulant therapy was believed to be indicated for patients who had had a myocardial infarction or who had signs of an impending infarction. E. Sterling Nichol[2] reported on results with over 1,000 patients on long-term anticoagulant therapy and 417 controls. Among the treated group the mortality was 6.2 percent, 10 percent, and 20 percent for those with impending infarction, one infarction, and multiple infarctions respectively. For the controls these figures were 40 percent, 37 percent, 38 percent.

Twenty years later this controversy has not been resolved but recent reports from Modan[3] in Tel Aviv cite a similar experience. Interest now has shifted to coronary bypass for patients with angina who have a high grade narrowing of the left main or proximal anterior descending coronary artery. An autopsy study reported by Jesse Edwards in 1957[4] showed significant coronary narrowing of greater than 50 percent of the lumen in 75 percent of males between the ages of 50 and 59.

In a recent study completed by Martin and others,[5] patients treated for myocardial infarction in 1939, 1949, and 1969, were studied to measure diagnostic and therapeutic inputs and outcome. The input factors were chemical laboratory tests, bacteriology examinations, roentgenograms, electrocardiograms, sedative drugs, and analgesic drugs. Laboratory tests and x-rays increased over time in a curvilinear fashion, i.e. with an accelerating rate of increase. Electrocardiograms and sedative drugs increased in a linear fashion, with three times as many electrocardiograms being done per patient in 1969 as in 1939, while the number of chemical laboratory tests increased thirty times. The use of analgesic drugs diminished, and there was no significant change in the number of days of hospitalization. Hospital mortality was not significantly different, taking into account the differences in severity. Adjusted for severity it was 36.4 percent in 1939; 22.2 percent in 1949; 17.3 percent in 1959; 27.0 percent in 1969. It will be important to compare results in 1979 with this study. Since 1969, the treatment of coronary artery disease has been modified by the introduction of the coronary angiogram and bypass surgery, as well as by new drugs.

There are other controversies in medicine, but I selected this one to illustrate some of the problems in making decisions about medical care standards, and to suggest the different ways in which decisions will be made. In a famous article in 1968, Garrett Hardin[6] wrote in *Science* of the tragedy of the commons. He pointed out that there is a class of human problems for which there is no technical solution. In 1975, Howard Hiatt[7] referred to Hardin's article and said "Focusing on the population problem, Hardin likened our present dilemma to that of a group of herdsmen whose cattle shared a common pasture. As long as the number of animals was small in relation to the capacity of the pasture, each herdsman could increase his holdings, without detriment to the general welfare. As the number of cattle approached the capacity of the land, however, each additional animal contributed to overgrazing. Any single herdsman attempting to maximize his own gain could reasonably project that the addition of one or a few cattle to his holdings would have minimal effect on the general welfare. All herdsmen acting and reasoning individually in this fashion, however, would destroy the commons. "Ruin," concluded Hardin, "is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all."

Hiatt compares the resources available for health care to the grazing area on the commons, and the practices drawing upon those resources to the grazing cattle. Total resources means all the money which society will or can allocate for health purposes, not just the resources for personal health services. Personal health services now draw away more than 80 percent of these resources, leaving 20 percent for prevention, public health, public education in health, professional education, and biomedical research. William R. Roy in his Shattuck Lecture for 1976[8] lists three medical facts of life: "that we cannot do everything that is scientifically possible for everyone everywhere; that if we cannot do everything for everyone everywhere, we must decide what we are going to do for whom where; and that personal health care is only one of the determinants for health."

Hiatt suggests that we should examine some of the principles by which we have dealt with the medical commons, and which may be leading us to the ruin predicted by Hardin:

1. One should do everything possible for the individual patient. "As we develop more and more practices that may be beneficial to the individual but not to the interests of society, we risk reaching a point where marginal gains to individuals threaten the welfare of the whole."
2. We should examine and identify those practices which benefit neither the individual nor society.
3. We need to examine the assumption that health is exclusively a medical concern, and to appreciate the limitations of curative medicine.

One way or another the problem of the commons will be resolved. That it is referred to by Hardin as a tragedy suggests that the usual resolution is ruin and the destruction of the commons. I am not quite sure that that is a good analogy to the commons of resources available to health. Clearly the entire resources of a nation cannot be allocated to health care, but neither are these resources fixed as are the boundaries of a commons. The commons can be extended, but not infinitely. These resources are not used up in the way the grazing land is destroyed by overgrazing; they are in fact rapidly renewable resources compared to land. Their misuse and misappropriation, however, can result in tragic consequences for health care, for health professional education, and for biomedical research.

Roy suggests that there are two ways to ration or limit expenditures for health services.

1. Place a cap on payments. This is the easiest and most direct approach.
2. Control the size of the system by input limitation.

Any effort to control cost must be accompanied by a parallel effort to monitor quality. Our methods for assessing quality are imperfect, but they are the best that are available to anybody. We know ways to make them better. The problem-oriented record may be one of these ways. Analysis of critical incidents may be another. Chart audit undertaken as a part of professional work is another. Periodic recertification is another.

There is growing awareness that as professionals we must undertake the examination of the cost effectiveness of our practices and procedures. This will be difficult for physicians and scientiest, for although we are prepared to examine the effectiveness of any procedure, test, or medication, we are not accustomed to thinking in terms of cost. In fact the concept seems to us immoral when applied to treating sick and suffering men and women. Physicians do not like to think of people in economic terms. It suggests a decline in ethical values and a dissolution of medical traditions. Victor Fuchs[9] in his book says that this results from the *monotechnic* and *romantic* points of view which characterize physicians. I think that it is because we use those two classes of decision making— the scientific-rational and the moral-ethical—which are most appropriate to our work.

It is evident, however, that economic decisions will be made, and unless physicians have a major say in these decisions, they could be bad ones for the following reasons:

1. They could reduce the quality of personal health care.

2. They could reduce the quantity of essential health services.
3. They could result in medicine becoming a trade with competition among various systems of health care. This would waste the commons.
4. They could be made by those caught up in the current fads of anti-scientism, anti-technology, and anti-intellectualism.
5. They could reduce dollars available for other health initiatives, such as education, research, prevention, public health, and improved facilities.

The Massachusetts General Hospital supported by a $660,000 grant from the Milbank Memorial Fund, is launching a study under the leadership of Dr. Alexander Leaf and Dr. George Thibault to assess the value of new technologies, especially those related to the diagnosis and treatment of cardiovascular disease. Dr. Leaf says that we are faced with three alternatives:

1. Ban all technology.
2. Assess its value in patient care and apply it rationally with regard to benefits and cost.
3. Allow it full, uncontrolled proliferation and ultimately be destroyed by it.

Last spring, the Center for the Analysis of Health Practices began publishing a newsletter reporting on current work in the Center and providing readers with an updated bibliography in the area of health practice cost effectiveness. The National Fund for Medical Education has declared that its objective in supporting medical education will be "Containing costs while maintaining quality." It is unfortunate but understandable that the profession and the nation's medical schools have not taken the lead in this matter. The doubling of health costs in the past six years to 140 billion dollars has made cost a national issue whose solution cannot be delayed. Caps will be put on services, and the power of the regulators will increase. This will not absolve us from our responsibility to protect the commons from those who cannot know how to manage it without our help.

We must move quickly to:

1. Set standards for medical care that are high and difficult to attain.
2. Evaluate new and existing technologies and learn to assess cost-effectiveness.
3. Introduce economic considerations into all levels of professional education, but also
4. Sustain traditional ethical obligations which make the care of the patient the ultimate concern.

REFERENCES

1. Friedberg, CK: New York Journal of Med, 57:3643-3659, Nov 15, 1957
2. Nichol, ES, et al: Am Heart Journal, 55:142-152, Jan, 1958
3. Modan, B, et al: New Eng Journal of Med, 292:1359-1362, June 26, 1975
4. Edwards, JE: Bull New York Acad of Med, 33:199-217, March, 1957.
5. Martin, SP, et al: Ann Int Med, 81:289-293, Sept 1974
6. Hardin, G: Science, 162:1243-1248, 1968
7. Hiatt, H: New Eng Journal of Med, 293:235-241, July 31, 1975
8. Roy, WR: New Eng Journal of Med, 295:589-596, 1976
9. Fuchs, VR: *Who Shall Live?*, p 5, Basic Books, NY, 1974

Stroke in the geriatric patient

For reasons which he clearly states, the author's attitude toward managing stroke in the elderly tends to be conservative, but he cautions against rigorous preconceived notions or making hard predictions about stroke patients, because anything is possible. Complex and arduous diagnostic procedures should not be routinely undertaken in all patients. The author suggests also that a stroke patient shouldn't be abandoned because one feels little can be done medically. Since opportunities for surgery or chemotherapy are limited in geriatric patients due to collateral disease, management is usually oriented toward minimizing or preventing lung, heart, and other complications. By and large, the treatment of stroke in the elderly, and of its possible precursor, the transient ischemic attack (TIA), is likely to be the responsibility of the primary physician rather than the neurologic specialist. The author defines "completed stroke" and "transient ischemic attack" and reviews diagnostic technics, medical management, and the risks and benefits of surgery. Robbins, S.: Hosp. Prac. **11:8:**33 (Aug.) 1976

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Medical Manpower and Public Policy: A Short History of P.L. 94-484

ARTHUR J. VISELTEAR, PH.D.

"This committee in authorizing and reorganizing this legislation acts as the steward of the American people regarding the purposes and the amount of funding available for health professional schools. In that respect the committee must be constantly vigilant in asking itself the question—is the public receiving full value for the investment we are making on their behalf? This committee believes that the public at large is not receiving full value."

U.S. Senate, *Health Professions Education Assistance Act of 1974.* Committee on Labor and Public Welfare. Report No. 93-1133. September 3, 1974. Washington, G.P.O., 1974, p. 212.

"We have reason to believe that incentive rather than coercion, individual choice rather than programs imposed by decree, are most likely to liberate all individuals to find their own fulfillment. We would trade a little efficiency, even a bit of welfare, in order to assure the opportunity for individual choice and immunity from coercive authority."

Kingman Brewster, Jr., *Churchill Lecture,* The English-Speaking Union of the Commonwealth. London, November 27, 1975.

A few days before adjourning in early October 1976, Congress sent President Ford "The Health Professions Educational Assistance Act of 1976" (H.R. 5546). Upon receipt of the bill, and within ten days, the President could have done one of three things: sign the measure into law, issue a veto message, or do nothing and thereby pocket-veto one of the most controversial and highly charged measures to reach his desk from the 94th Congress.

On October 12th, the day of expiration, President Ford signed H.R. 5546 into law. There was no signing ceremony. No member of Congress or representative from the public or media were present. None of the most exercised and concerned constituencies—the deans and the students of medical schools—were in attendance. No pictures were taken, no autographs given, and no ball point pens—that universal symbol of Presidential approval—were awarded. The emergence of P.L. 94-484 was after all a solitary Presidential act; one based as much on politics as policy, on historical accident as statesmanship.

The public learned about President Ford's decision in a White House press release. The President noted that there were not enough doctors in rural and inner city areas and that there was a continuing decline in the number of doctors practicing primary care. The new law would correct this. To be sure there were some "undesirable features" in the bill, but "on balance," it represented a definite step toward improving health care delivery, and, accordingly warranted his signature.

The assumptions underlying the new law—specialty and geographic maldistribution—are those which have been proffered since the first manpower bill became law in 1963. With the 1963 act and its amendments, Congress pursued a consistent policy which increased the aggregate supply of physicians, provided a stable base of revenue to medical shcools to assure their financial viability, and encouraged specific project grant programs, including curricula innovation and improvement, programs to recruit minorities, experiments to train mid-level health practitioners, and loan forgiveness programs for students who agreed to practice for at least two years in rural areas.

During the 93rd Congress (1972-74), Congress again reviewed the effects of its legislative initiatives and concluded that taxpayers just were not receiving full value for their investment. Despite massive

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federal aid (over $4 billion spent between 1963 and 1976), increased enrollments, construction of 21 new medical schools and new and experimental programs, the Congress believed that physicians were still not being trained in sufficient supply, not practicing where they were needed most, and not engaged in primary care.

It was at this time that the most comprehensive and intrusive of the manpower bills was introduced. Senator Kennedy's omnibus proposal was designed to impose new regulatory controls to distribute health personnel. For continued capitation grants, medical schools would have to assure that their students would practice for a time in DHEW-designated physician-shortage areas. Additionally, each school would have to meet certain prescribed obligations, including: (a) establish an identifiable teaching and research unit in family medicine "comparable to other departmental units"; (b) conduct a three-year residency program in family practice or its equivalent; (c) reserve a prescribed percentage of five-year places for students who sign up for the physician-shortage areas scholarship program; (d) agree to expand enrollment; and (e) reserve at least 35 percent of its filled residencies for training in primary care. Additional moneys would have been made available for special project grants for programs in postgraduate and remote site training, and for educational assistance to individuals from disadvantaged backgrounds. Additionally, the original Kennedy proposal included provisions for national certification of postgraduate training programs (to correct specialty maldistribution), national licensure and recertification of physicians, and regulation and restriction of foreign medical graduates.

Not surprisingly, most of Kennedy's regulatory provisions were ultimately rejected. In its place the Senate substituted a voluntary program, and the House and Senate conferees ultimately considered a program which would have expanded the National Health Service Corps, continued capitation for certain obligations (less intrusive than Kennedy's, but intrusions nonetheless), and authorized certain private groups (the Liaison Committee on Graduate Medical Education, for example) to review specialty maldistribution and national licensure. But owing to a number of factors, not the least of which was a burlesque involving a controversial vitamin bill which had been added as a rider to the manpower proposal by Senator Proximire, the Conference Committee was unable to arrive at a compromise and no bill emerged from the 93rd Congress.

At the conclusion of the meeting of conferees, Senator Kennedy and Congressman Rogers agreed to make manpower their first item of business during the 94th Congress. Both agreed to send each other a bill as soon as they could orchestrate hearings, write a committee report, and muster enough votes on the floors of their respective chambers. After all, both committees had been considering the manpower legislation since 1971. It was not as if they were embarking on an adventure into unexplored territory indeed, it was something that almost was enacted in December 1974. Yet, as with all things political, with so many vested interests and critical concerns, the bill ultimately approved by Congress was delayed time and again and did not emerge until the last moment in the life history of the 94th Congress.

One reason for the delay was the realization, finally, that there may no longer be a physician shortage in this country. Indeed, in early 1974, then Assistant Secretary Charles Edwards could testify that we had too many physicians. Edwards, as his successor Theodore Cooper was to do in 1976, advanced the argument that a surplus of physicians, the inevitable result of the omnibus provisions of both the Kennedy and Rogers bills, would increase rather than decrease the total per unit cost of health services, result also in a reduction in productivity, and displace other types of health manpower from their present roles in the health delivery system. Even the Senate accepted the Administration's position, but nevertheless argued that needs for health manpower could not be dealt with solely in terms of aggregate supply. Also to be considered, for example, were the population served and the demand, availability, accessibility, and the quality of health services. Seen in these terms, the Congress was inevitably led back to the fundamental problems of geographic and specialty maldistribution and this nation's increasing reliance on alien graduates of foreign medical schools.

The Senate bill that ultimately emerged in 1976 was a pale representation of the original Kennedy regulatory program. It authorized continued capitation, and called for two "modest" obligations. For continued institutional support, each medical school would be required by 1980 to: (a) set aside up to 35 percent of its positions for students wishing to enroll in the National Health Service Corps, and (b) reserve up to 50 percent of its filled residency positions (direct and affiliated) for family practice, general internal medicine, and general pediatrics (with an additional 7 percent each year set aside for obstetrics and gynecology). If, on an aggregate basis, the "assured national goal" was met in 1978 (42 percent of filled residencies in primary care), individual medical schools could proceed with business as usual. If the national goal was not met, then in 1979 all the medical schools would be required to set aside 47 percent of their residencies for primary care.

The House bill also would have continued capitation, but the medical schools wishing continued support would have to accept one of the following three conditions—increase the size of their first-year class, increase the size of their third-year class, or develop a program of remote site training. Also included in the House bill was a controversial "pay-back" provision which would have required that medical students repay the amount of money received from the federal government for their education. This amount was to be waived, however, if the student agreed to practice in a physician-shortage area. As Congressman Rogers said during House debate:

> "We are saying to the student, if you would help us meet the national need where tax dollars have gone to pay for your education—if you would be willing to help meet that need by choosing to serve where they need a doctor—you do not have to pay it back. But if you want to go to Park Avenue, or to Palm Beach, or out to California and make a lot of money, you can do that too. You are not helping us too much to solve the national need, but that is your choice."

What the conferees sent to the White House in October 1976, however, reveals the elegance and ambiguity of compromise that is so characteristic of the Congress. Continued capitation would depend on acceptance by medical schools of two principal features: (a) set aside up to 50 percent of their affiliated residency positions for primary care by 1980, and (b) accept as transfers to the third-year class United States citizens currently enrolled in foreign medical schools who pass Part I of the National Boards.

Despite the fact that the transfer provision is designed only for those United States students currently enrolled in foreign medical schools, and will end in three years (when the legislation expires), some believe the USFMG section to be an unprecedented infringement of academic freedom. Bypassing as it does the normal admissions process, the Secretary of the Department of Health, Education, and Welfare, designated in the law to distribute such students "on an equitable basis" to all U.S. medical schools, becomes a school's admissions officer with respect to this category of transfer student.

The USFMG section which emerged during the twilight hours of the 94th Congress was a variation on a theme which had its origin in the 93rd Congress. Congressman Rogers wanted to increase the number of medical students in the country. One way to accomplish this goal was to establish a new program to encourage the transfer of U.S. citizens studying medicine in foreign countries to U.S. schools. The problem was that many of these students needed remedial work to make up for poor basic science training received abroad. The House bill, therefore, authorized moneys for such remedial training for U.S. students wishing to transfer. This provision, incorporated in the 1974 bill eventually approved by the House but stillborn in Conference, was not subjected to policy analysis or debate by the Congress during the 94th Congress. It was resurrected from the collective memory of those Congressional staffers responsible for resolving the differences between the Senate and House bills in Conference. And what happened in Conference? Well, Congressman Rogers had lost the pay-back provision, as he did his provision to increase the first-year class size. If the bill to emerge from the Conference was not to be considered primarily a Senate bill, then Congressman Rogers would have to "win" something. Reasoning that impending national health insurance would create a demand for more doctors, Rogers held firm for increased enrollments in the first-year classes, but having lost that provision, settled for the transfer section that was conceived and agreed to.

The USFMG section has found many supporters in the Congress. Senators and Representatives from the larger states (California, New Jersey, and New York) have been prompted by their constituents to act on behalf of their sons and daughters enrolled in foreign medical schools. Admission to medical school, these Congressmen learned, was often based on subjective, "alchemical" considerations. Some students failed to gain admission not because they were not qualified, but because there were not enough slots to go around. Rather than becoming osteopaths, veterinarians, mid-level health practitioners, or change their career goals altogether, many sought their medical training abroad. In the opinion of some, the villain in the piece is not the Congress at all, but the American Medical Association, which they say has fought since the 1930's against moves which would have expanded enrollments.

It may be argued that too much attention has been focused on the transfer provision, as the major objective of the bill is to train primary care physicians. The law continues support for family practice and authorizes a new program to assist the training of teachers for family medicine residency training. Over $70 million in new grant moneys have been set aside to establish or expand training programs in primary internal medicine and primary pediatrics. And the new act prescribes, as a quid pro quo for capitation, the general expansion of all primary care training programs by requiring by 1980 that 50 percent of the nation's filled, affiliated residencies be in primary care specialties.

The law also should bring more physicians to our nation's medically underserved areas. In return for scholarship support, a young physician will serve, and may choose to remain, in these physician shortage areas. By 1980, it is envisioned that there will be enough scholarships for one out of every four medical students, ultimately assuring that medical care will be available in all communities of our nation.

Yet the law has left a "bitter aftertaste." The debate on what eventually emerged as P.L. 94-484 extended for over two Congresses. Through it all, there were thousands of pages of often funereal testimony, hundreds of witnesses, scores of modified and redrafted committee prints, interminable staff and member briefs, bizarre subcommittee and committee mark-ups, lengthy and often caustic floor debates, innumerable real and imagined threats, and countless strategies and alliances carefully developed and summarily shattered. It is an inelegant process at best; downright messy at its worst.

But the Congress believes it has always acted for the very best of reasons. It has sought to address national needs, while some of the medical schools, Congress contends, pursue only their own needs and mission. In the opinion of some, the schools have turned inward. Declaring themselves national resources, the schools continue to be contemptuous of anything the Congress offers in terms of the national interest. Congress, for its part, often has asked for too much, has been equally contemptuous of all but testimony it wanted to hear, and often has chosen to follow its preconceived conclusions rather than accept the data and recommendations of other than its own experts.

Moreover, Congress and the official spokesmen for the schools often appeared locked in "mortal combat" over even the most innocuous sections of the bill. Even those provisions which were debated thoroughly and unanimously approved by the Congress and the concerned constituencies, such as the provision limiting alien graduates of foreign medical schools, have become controversial and policy suspect. Is it any wonder that the new law has become *cause célèbre?*

In deciding at this time whether or not to accept capitation, Yale recognizes that it is standing almost alone. Even the Association of American Medical Colleges, which in November unanimously passed a resolution deploring the transfer section as an "intrusion into the academic prerogatives of the University," one month later had resigned itself to the fact that the chances of revising the law in the present (95th) Congtess were slim, furthermore, might provide an opportunity for a variety of changes to be made, many of which would doubtless be more intrusive than the obligations in the present law.

From its vantage point, then, Congress, and the Administration as well, have addressed their perception of the national need. Yale, in pursuing a course, must decide whether or not its fulfillment of that perception is a price too high to pay.

AMA enters litigation on professional advertising

Unrestricted advertising of prices or fees in newspapers by attorneys or physicians is not in the best interest of their clients or patients, declares a brief filed in January with the U.S. Supreme Court by the American Medical Association.

The AMA brief is filed as a friend of the court in a case appealed from the Supreme Court of Arizona in which two attorneys are seeking to overturn the proscription of the Arizona State Supreme Court against unrestricted advertising of fees by attorneys in the state.

Advertising in the highly sophisticated field of medicine raises considerations quite different from the advertising of consumer products and simple services, the AMA points out.

There is significant potential that some apparently truthful claims will mislead the ordinary consumer to his economic and physical detriment. There also is risk that some nondeceptive statement can cause the quality of service rendered by physicians to deteriorate. For instance, the physician may fail to order necessary lab tests and x-rays because the cost would exceed his advertised fee for a given service.

Although the Arizona case involves attorneys, the same considerations would apply in medicine, the AMA points out.

The brief points out that the AMA does not proscribe all advertising by physicians. The ban is against solicitation of patients through use of testimonials, claims of expected results of treatment, claims that imply superior skills to other physicians, or claims that contain incorrect or incomplete facts.

The public is entitled to know the names of physicians, the location of their offices, their office hours, and other useful information that will enable people to make a more informed choice of physician. This may be done through office signs, professional cards, dignified announcements, telephone directory listings, and reputable directories of physicians.

The Public and Recombinant DNA Research

DANIEL CALLAHAN, PH.D.

The relationship between science and the public has often been likened to a romance. More recently it has been said that the romance is now coming to an end. But if the former view was correct, I doubt that the latter is quite accurate. On the contrary, the romance continues, but the difference is that the partners are now beginning to live together. That always adds a few well-known complications: more intensity, but also more fights, the potentiality of greater devotion but also of greater disillusionment. Romances conducted at a distance always go more smoothly. Problems begin only when bodies come together—and of course that is when real possibilities begin as well.

We are now gathered here in a public marriage counselor's office. All we lack, unfortunately, is a wise marriage counselor. Perhaps he or she will turn up. In the meantime, we must display both our mutual loves and hates in public, even before the press.

The case in question has many familiar elements about it. There are charges that one of the partners only married the other for money. And there are charges, and counter-charges, that the real motives and interests of the partners are other than what they claim them to be. There are also mutual accusations from both sides about the unwillingness of the other side to talk openly and frankly. "Why won't you talk with me," they each say. To which the other responds, "but I try and you just don't listen." "But when did you try?" goes the response. "During our trip to Asilomar," is the answer. "Are you kidding," the other replies. "Well, I certainly tried in Cambridge, and in New York and in Sacramento," is the retort. "You call that talk; we just yelled at each other."

I think we have already heard enough of that too-familiar marital dialogue. Our task is to see if we can sort out the problems and to transcend the petty and destructive way two parties in conflict can destroy each other. Let us begin at the beginning and see what we have here. What has been the relationship between science and the public on the issue of recombinant DNA?

I will date the beginning as the Gordon Conference in the summer of 1973, the outcome of which was a letter to the National Academy of Sciences and the Institute of Medicine to establish a committee to study various problems of recombinant DNA research and to recommend specific actions or guidelines. That was and remains an unprecedented act of moral insight and courage. A committee was formed, and it recommended that a moratorium on certain forms of recombinant DNA research be voluntarily established and that the National Institutes of Health (NIH) set up an advisory committee to, among other things, evaluate potential hazards in the research, to devise safety procedures, to develop guidelines for researchers working with potentially hazardous DNA molecules, and to call an international conference. In October 1974 the NIH established the Recombinant DNA Molecule Program Advisory Committee. In February 1975, the international conference earlier called for was held at the Asilomar Conference Center in Pacific Grove, California. In essence, the conference participants concluded that the voluntary moratorium should be lifted and that in the future research should be conducted under a set of guidelines. Immediately thereafter, the NIH Advisory Committee began work on refining the guidelines suggested at Asilomar.

Now where, up to this point in the history of the matter, was the public? The only straight answer is that the public was not much in evidence. Save for the presence of four lawyers at Asilomar and the presence of a good number of reporters, the public was at that point little involved. What are we to make of that fact? Nothing very potentous, I want to suggest, and

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This article is adapted from a paper presented by Dr. Callahan at the Academy Forum, "Research with Recombinant DNA." National Academy of Sciences, March, 1977.

certainly nothing deceptive. The very first thrust of the recombinant DNA debate was within the scientific community. The group now called the Berg *et al* group wanted to raise a moral issue in the scientific community: some of the proposed recombinant DNA research *could* be dangerous. They succeed in putting that moral issue on the table, not without opposition, and that was their great achievement. They also had the foresight, however, to recognize the significance for the public of what was at that stage a struggle among scientists trying to determine whether there were or were not real dangers in the research. They signaled that fact quite openly and clearly by inviting the lawyers and the press to Asilomar.

It is very easy to second-guess the whole procedure up to that point. Surely, one might say, four lawyers hardly constitutes a full participation of the public. And surely too, it can be added, press coverage of what was otherwise an essentially closed event is something less than public participation in scientific decision-making. True enough, but that is all retrospective wisdom. In the first place, the whole problem was brand new. There exist no real historical precedents for a problem of this kind: what ought one to do in a situation of spectacular hypothetical possibilities over against equally spectacular hypothetical dangers? In the second place, there did not then nor does there today exist any ready-made forums for public discussions of matters of this kind. The scientists had to create their own public forum. We would not be here today, and there would probably never have been debates in Cambridge, Ann Arbor, New York and elsewhere had they not, with no public prodding whatever, done so.

But let me return to the history. During 1975 the NIH Advisory Committee worked hard to develop guidelines, and in December of that year a draft set was sent to the Director of NIH. An obvious question arises at this point. Were there any representatives of the public on the NIH Advisory Committee? No, there were not at that time. Though a lay person was added later, that was a real oversight. The next important event was the calling by Donald Frederickson, Director of NIH, of a meeting of his Director's Advisory Committee. To that meeting, held on Feb. 9-10, 1976, were also invited representatives of various public interest groups, representatives of various factions within the scientific community, and assorted other people.

The purposes of the meeting was a public examination of the draft guidelines. They were fully explained and then debated by the participants. On the whole, it was a subdued debate. The majority of the participants, including myself, felt they were in general satisfactory. The strongest opposition came, not from the public representatives (with the exception of Susan Wright from the University of Michigan), but from other scientists, notably Robert Sinsheimer and a group of young scientists from Boston. Peter Hutt, former General Counsel of the Food and Drug Administration, raised what for me was the crucial question: is the burden of proof to go ahead with recombinant DNA research on the shoulders of those who support the research, or on those who oppose it?

The implicit answer, I believe, was that the burden of proof lay with the opponents. That is hardly surprising, either in this or in most other instances of technological innovation. We live in a country which still has a great faith in scientific progress, and an equally great dependence on such innovations for our economic medical and social well-being. In that general cultural situation it seems pointless to blame individual scientists for wanting always to move forward.

However low-keyed the February 9-1-, 1976 meeting at NIH, skillfully and fairly run by Dr. Frederickson, the ingredients of a coming storm were present, not fully to be exploited until later. There was, for one thing, a disturbing realization on the part of some that the debate and discussion on guidelines had moved very fast. Why was it, for instance, that the first fully public discussion of recombinant DNA was already focussed on draft guidelines? A decision even to prepare and discuss guidelines seemed to assume that the basic ethical, political and social questions about recombinant DNA research had all been raised and fully discussed. But they had not been. For another thing, while there were certainly public representatives at the NIH meeting, and many reporters as well, it was hardly likely in such a heavy and genteel setting that the full voice of the public could have been heard, or that, if heard, it could have significantly slowed down the rapidly-moving machinery of putting guidelines in place to govern NIH grants. It should hardly be astounding that some felt vested interests were pulling the strings and that, once again, the scientific establishment was slipping one over on the public.

I reject that synical interpretation. The immediate problem of NIH was to set some ground rules on a form of scientific research which was moving very rapidly and which, one way or the other, had to be controlled and monitored. The guidelines did and do represent a compromise solution. But, some have complained, in such a potentially fateful situation, compromise is not good enough. They may be right—future generations will make that judgment—but the reality of matters now is that neither the public nor the scientific community share any consensus whatever on recombinant DNA research. And what do we do in our society when there is no consensus on an issue? We normally compromise, for that is the one way we can continue to live together and at the same time keep the debate going. If NIH had not acted as rapidly as it did, one can be almost certain that the research would be going on at a much faster pace than it is today, and that the public would know even less than it does now. If NIH had decided to declare a long moratorium on all recombinant DNA research, my own guess is that it would have gained the support neither of the public nor the most segments of the scientific community. It could not have made such a moratorium stick.

Nonetheless, the fact remains that up to and including the February 1976 NIH meeting, there was very little public participation in the recombinant DNA debate. That was soon to change. As the headline of a February 11, 1977 article by Nicholas Wade in *Science* put it, "Gene-Splicing: At Grass-Roots Level a Hundred Flowers Bloom." New York State held public hearings in the fall of 1976 on recombinant DNA research, and a bill has been introduced into the New York legislature to control the research. The same thing has happened in California, and is being considered in New Jersey. In Madison, Wisconsin; Bloomington, Indiana, and San Diego, California, discussions and hearings on the issue have taken place. A major debate took place during 1976 at the University of Michigan, resulting finally in a 6-1 vote on the part of the Regents of the university to allow the research there to proceed. The most flamboyant public debate of all took place in Cambridge, Mass., where the city council, led by Mayor Vellucci, imposed for some months a moratorium on the building of a recombinant DNA laboratory at Harvard. The moratorium was only lifted after a special citizen's commission approved the construction.

Meanwhile, also during 1976, a number of environmental groups became actively involved with the issue. The Environmental Defense Fund, the Natural Resources Defense Council, Friends of the Earth and the Sierra Club have all, in one way or another, taken an exceedingly dim view of the way the public has been involved in the debate and have, with minor variations, called in effect for a brand-new public debate. Senator Dale Bumpers has introduced a bill in Congress to control recombinant DNA research, and Senator Kennedy is expected to hold hearings this spring before the Senate Health Subcommittee.

So, in one way or other, the public is now involved. But there remain of course a few questions, and I want to focus on three that seem to me central. The first is why it took the public so long to get involved and what were the circumstances which explain the development of that involvement? The second question is, now that the public is involved, what options are open to it and how might they be evaluated? The third question is: what ethical and social criteria should the public use in judging, and deciding upon, the future of recombinant DNA research? As it will turn out, these questions are not unrelated to each other.

1. *Why did it take the public so long to get involved in the issue?* It does not seem to me adequate to say it was because scientists kept the public out. They did not. Even if it is true that wide press coverage is not public participation, it is surely a necessary condition for that participation. The Asilomar Conference was well-covered in the press, and there were frequent follow-up stories throughout 1975 and, as the debate heated up, even more in 1976. If the public had wanted to jump in right after Asilomar, it could have done so. But the public did not leap at the opportunity. Why was that? There is one obvious explanation. The lag-time between a complex scientific issue being raised in public and public interest in that issue is almost always fairly long. Yet I think a more subtle, and supplementary, explanation is necessary in this case. My own theory is that the public did not take a real interest in the issue until some senior and notable scientists entered the fray, and entered it in a very outspoken way on the side of the doubters. I am referring to the advent of Erwin Chargaff, George Wald, Ruth Hubbard and Liebe Cavalieri on the scene, which occurred during 1976. To be sure, Robert Sinsheimer had gone on record earlier with his own doubts, and Science for the People in Boston, primarily composed of younger scientists and those interested in science, risked and got considerable wrath for publicizing their own hesitations. But none of them commanded the kind of public attention—if only because of their scientific eminence and seniority—that Chargaff, Wald, Hubbard and Cavalieri did.

Why was that important? For one very obvious reason. It is very hard, if not impossible, for the public to get interested in scientific decision-making unless potential policy issues are called to their attention by scientists. And it is even more difficult to mount a full public debate unless the public has some scientists to lead them into battle. So it was on the early environmental struggles and so it was on the debates over nuclear energy. In this case, as Mayor Vellucci was quoted in *New Times* (in his characteristically understated way), "If I'm gonna take a stand against this goddamn thing, I need people on *my* side. And since they said they would come [Hubbard and Wald], I was fortified, I was ready for a meeting, and that is the reason why we then flung the challenge at Harvard and MIT to send *their* scientists over here because I knew *I* had scientists on *my* side!" Whether their worries and arguments are right or wrong, then, the advent of Chargaff and the others provided a scientific rallying point for those members of the public who wanted to know if their own hesitations had any scientific basis. Just why those scientists were not heard from at the time of the Asilomar conference and in 1975, I do not know.

Will it be possible to develop the democratic mechanisms for full public debate now being called for? I believe so, first by means of the debate necessary to turn the NIH guidelines into federal law, making them applicable to all who do the research; and, second, by the establishment also of a federal commission, as Prof. Grobstein has suggested, to fully examine the issues. Or, alternatively, if not a new Commission put together for that purpose, to make use of the present National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research for that purpose, a Commission which has already established a solid reputation for seriousness, diligence and fairness. In the meantime, speaking as at least one member of the public, I am well prepared to live with the present NIH guidelines.

3. *What ethical and social criteria should the public use in judging, and deciding upon the future of recombinant DNA research?* This is to me the most fundamental question. Though I think that the course chosen by the original Berg group, and by the NIH in developing its guidelines, was, given the novelty of the issue and the need for quick action, eminently defensible and worthy of praise, the critics are still correct in a very *general* way. There has yet to be a good national public discussion. Worse still, from what I can see, the discussion is not getting any better.It is, in fact, getting boringly repetitive in substance and tediously hysterical in tone. It is simply not enough to affirm the high principle that the public should have a role in the decision-making, that there should be public forums and public debates. What ought to be the *content* of that discussion? By what *criteria* ought the public to judge the competing scientific and ethical cases that have been made by now? For the public should not only be heard. The public ought also to think. But what is it supposed to think *about?*

I can only make some suggestions here on that question. I have not thought about it enough myself to do more than that. First, I believe the public needs to think most carefully about the whole idea of scientific progress. As a general policy, does it favor nerve, boldness and risk-taking, or does it favor caution and slowness? Which is the wisest future direction of our public policy in this respect, on basic research? And what counts as wise? Second, I would like to know whether the public, after considerable thought, thinks that we have a *moral obligation* to pursue lines of research which may benefit present and future generations? I say "moral obligation" because it is sometimes implied by advocates of recombinant DNA research that science would be guilty of a sin of omission if it did not continue and promote research so promising in theoretical and practical benefits. I myself would prefer to say that the research is desirable and valuable, but by no means is it morally obligatory. It is just one choice among many we can make in allocating our scientific resources. But I would like to know what the public—after due consideration—thinks about all that. Third, what does the public think about risks and benefits? How, in some rational way, *ought* the public to think about that problem?

One obvious implication of this line of thinking is that the public has as much obligation to act responsibly as does the scientific community. All of the appropriate fuss being made about the need for socially responsible scientists could well be matched with some concern about a socially responsible public. The future of the recombinant DNA debate will turn on the quality of the dialogue between the scientific community and the public. Neither side can conduct the debate on its own. Each needs what the other has to give. That means the public must be kept informed in the future, must have a central role in present policy formation, and must develop standards by which to judge the issues. It also means that scientists must bring their knowledge, and just as importantly their lack of knowledge in this case out into the open, not once but again and again.

We have, the public and the scientific community, now begun to talk. This marriage can be saved.

There is still another point to be made about the public involvement. As I mentioned earlier, there still does not exist any natural forum for debate of issues of this kind. If the public had displayed an early interest, where could they have gone? As the debate within the scientific community developed, there were no public organizations in place ready to grab the issue and run with it. Though various environmental groups are now involved, groups which are skilled in publicizing issues and developing grass-roots interest, they are not necessarily the best-equipped organizations to deal in the long run with the complex ethical, social and legal questions at stake.

2. *Now that the public is involved, what options are open to it and how might they be evaluated?* A number of options have been proposed, and they can be classified into two groups. The first and most moderate option would be to turn the present NIH guidelines into state or federal law, perhaps modified, perhaps not. The advantage of that approach is that it would make up for the most obvious necessary deficiency in the NIH regulations—that they apply only to federal grantees. They do not apply to those doing recombinant DNA under private grants and, most importantly, they do not apply to the research of private industry. Moreover, they are only guidelines, lacking the force or penalties of statutory law. In my own view, there probably should be such laws, and

preferably federal rather than state laws. More to the point, a public debate over whether there should be laws governing recombinant DNA research would have the healthy effect of allowing full public participation.

The other options would go considerably farther. They would, in effect, mean scrapping the present guidelines and beginning the whole debate over again. Two groups, the Environmental Defense Fund and the Natural Resources Defense Council have petitioned the Department of Health, Education and Welfare, for hearings to determine if any recombinant DNA research should be allowed to go forward, and under what conditions. Friends of the Earth goes still farther, demanding a moratorium on hazardous experiments pending the outcome of Congressional hearings. Susan Wright, of the University of Michigan group, has called for a complete moratorium on all recombinant DNA research "until policy options have been carefully considered and chosen through democratic procedures developed for the purpose." Robert Sinsheimer, George Wald and Erwin Chargaff would allow the research to be done in only one national laboratory, and then under very strict controls. Clifford Grobstein has offered a middle-ground proposal. He asks that a joint commission, appointed by the President and by Congress, be established. Its task would be not only to take up the ethical, social and legal issues earlier skirted, but also to analyze all aspects of the problem. A full assessment by the Commission would be due not later than two years from its initiation and not more than three years from the date of the NIH guidelines.

Two brief points. I do not think a full and total moratorium is possible, even if it might be desirable. Such a flat ban on research would require a consensus which, as suggested earlier, simply does not exist in our society. It would also beg the question of whether the research is potentially hazardous. Nor, for that matter, does there exist any consensus on the need for caution and slow movement which would have to be the underlying value premise of such a moratorium. I also have my doubts about concentrating all research in a single facility. I am not certain that is the best way to get the best science, and at least we want that, and I am even more skeptical whether such a necessarily well-guarded and quarantined facility would be a good starting point for full public disclosure of all the facts as the research moves forward. Full disclosure is considerably more likely where many facilities are doing the research and where many other scientists, involved in the research or not, are able to watch the process. It stretches my imagination a bit to suppose that the sharpest critics of the research would be offered positions in a one-and-only national recombinant DNA facility.

Medical versus surgical therapy for acute coronary insufficiency

After a study of 40 patients with acute coronary insufficiency, 19 of whom were treated medically and 21 surgically, Selden, R., *et al.*, conclude that initial medical management followed by elective coronary bypass is a reasonable alternative to emergency bypass in continued disabling angina pectoris. In four months there were no deaths and 2 myocardial infarctions in the 19 medical patients and 1 death and 3 myocardial infarctions among the 21 treated surgically. Left ventricular ejection fraction did not change significantly in either group. The surgical patients had significantly higher functional capacities at four months as judged by lower symptomatic functional class ($P < 0.01$), higher exercise angina threshold ($P < 0.001$), higher pacing angina threshold ($P < 0.0001$). New England J. Med. **293:** 1330 (Dec. 25) 1975.

Medical Care Evaluation Studies: What Do They Measure?

JOSEPH S. GONNELLA, M.D.

Introduction

The variables which affect the quality of patient care are: 1) the clinical competence of the physician and the health team; 2) the setting in which the care is given; and 3) the patient population receiving the care. At a time in which a great deal of interest and concern are being raised as to the competence of the physician, the other two variables mentioned above are either ignored or are underestimated. It should be understood that even the most competent of physicians cannot give the optimal patient care if he were to practice in a substandard setting and/or his patients were not able or willing to assume their share of the responsibility.

My presentation will stress three points: *One,* to distinguish the evaluation of clinical competence and performance from patient care evaluation. *Two,* to stress the need to measure the health status of the patient prior to medical intervention, during medical intervention, and at the end of medical intervention. *Three,* to recommend that health care problems or deficiencies can be documented by analyzing the medical records with emphasis on reviewing the laboratory data or drugs given to the patients.

Evaluation of Clinical Competence and Patient Care

I will begin with a review of an experiment done many years ago by me and Drs. Goran, Williamson and Cotsonas (JAMA 214:2040, 1970). The reason for mentioning this study is to indicate some of the strengths and limitations of doing medical audit using the patient's record as well as to review the difference between evaluating clinical competence and the quality of patient care.

During a 3 month period which coincided with the outpatient clinic quarter for 21 senior students, all new patients (133) accepted for the medical clinic were interviewed by a single physician. The physician used a structured interview designed to elicit historical information dealing with symptoms and signs of urinary tract infection or incidence of procedures and disease that might increase the likelihood of that patient having significant bacteriuria. Following the interview, a clean, voided, mid-stream urine sample was obtained and refrigerated until it could be examined microscopically and cultured. The patient was subsequently seen in the medical clinic where the regularly assigned student-attending physician team proceeded with its independent examination and management, unaware of the preliminary study.

After the patient had been seen at least 3 times, his clinic record was reviewed by the same physician who had conducted the preliminary interview to determine the extent to which "critical screening inquiries" of the urinary system had been recorded by the student-physician team. In those incidences where inquiry had produced positive recorded responses, the chart was reviewed to determine whether additional study had been carried out to confirm or exclude the possibility of urinary tract infection. At the conclusion of the clinic quarter, all 21 students and 30 of the 38 attending physicians completed a 50-item multiple choice examination and a specially designed simulated patient management problem dealing with the diagnosis, treatment and follow-up of patients with urinary tract infection.

On the basis of the information obtained in the structured interview, there was some indication for considering the possibility of urinary tract infection in 108 of the 133 patients. Of the 108 patients, 18 were found to have 10^5 colonies per milliliter of urine. The review of the clinic charts revealed that the patient care teams had elicited and recorded significant historical information from 68 of the 133 patients. Of these 68, only 31 were investigated for urinary tract infection; 8 were found to have significant bacilluria.

Student and physician scores on the 50-item multiple choice examination and on the simulated patient management problem were impressive. In both groups, the results revealed that they knew a great deal and were competent in dealing with patients who had urinary tract infection. The study indicated that in medicine, just like in any profession, there are at least 4 types of individuals. The first group of individuals know what should be done, are capable of doing it, and will perform the work. The second group know what to do, are capable of doing it, but will not do the work. Group three know what to do, but are not capable of doing it, and therefore cannot translate their knowledge into performance. Group four lack knowledge, and therefore cannot perform. Educationally, the last group is the easiest to treat.

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I am convinced that the medical record, in spite of its limitations, is the best instrument from which data can be collected as to the performance of physicians as well as to the contribution of other individuals. However, I see a need to spell out in greater specificity the role of the physician and other components of the health care system before an audit is done. I believe that a physician should recognize health risk factors, and educate the patient as to the danger of these factors, ie., hypertension, obesity, alcoholism. In addition the physician should recognize diseases early. The latter responsibility is a reflection of clinical efficiency. Having recognized a disease or problem, the physician should treat appropriately, including educating the patient to accept the treatment. The physician should be responsible for monitoring the treatment, and outline a rehabilitation plan if the patient has a chronic health problem. In addition, he should look for (similar) health problems in other members of the family and community. The above are legitimate responsibilities of the physician; and yet all of these responsibilities can be discharged well without improving the health care of the patient if the other elements of the system do not meet their obligations.

It should be understood that health care is a responsibility of not only the physician but also of the patient, the institution in which that care is given, and of course the community. As far as the patient is concerned, the questions which should be asked are: Does he come early enough to see the physician, and does he comply with the recommendations given to him? As far as the institution is concerned, some of the questions are: Does the hospital have appropriate personnel, facilities and other resources necessary for optimal care? And for the community some of the important issues are: the availability and accessibility of the health care facilities.

The point that should be stressed is the physician's responsibility for the accuracy of the diagnosis. As for the diagnostic efficiency, namely, did the physician make the diagnosis early in the evolution of the disease; other variables are also important—the patient, the institution, and the community.

The Severity of the Health Problem Prior to Medical Intervention

In order to control the influence that the patient community, and institution play on health care, patient care evaluation should be done at three points: before medical intervention, during medical intervention, and at the end of medical intervention. The severity of health care problems at the time of admission or when the patient is first seen by his physician should play a crucial factor not only in the diagnostic management of the patient and the treatment, but also on the length of hospital stay. And yet, many of the length of stay reviews which are presently being done ignore the severity of the problem. As a result, the 50 or 75 percent reviews may be misleading since some patients are reviewed too early and others may escape review completely even though they should be reviewed. For instance, the length of stay for patients who are admitted for appendicitis will depend on whether the appendix is merely inflamed (Stage I), ruptured (Stage II); and ruptured and complicated by systemic infection (Stage III). (Quality of Patient Care—A Measurement of Change: The Staging Concept—Joseph S. Gonnella, M.D. and Michael J. Goran, M.D., Medical Care, Vol. 13:67, 1975), (The Staging Concept—An Approach to the Assessment of Outcome of Ambulatory Care—Joseph S. Gonnella, M.D., Daniel Z. Louis, M.S., and John J. McCord, M.A., Medical Care, Vol. 14:13, 1976). I believe that the medical profession needs to learn to classify health care problems in various subgroups as they relate to severity, as exemplified by the staging classification of conditions such as cancer of the cervix and cancer of the breast. The physician should classify the patient's condition at the time of hospitalization.

The severity of the medical problem upon hospital admission is a reflection of what has happened in the ambulatory arena. If the patient is admitted to the hospital at the most benign form of the condition, it can be assumed that the health care of that patient is acceptable. If, however, the patient is admitted at a later stage of his disease evolution, then one needs to ask why is this the case and who is responsible?

The Patient Care Evaluation Service

I would like to address myself to the problem of criterion development. Hospitals are having a great deal of difficulty in developing criteria which are clearly understood and meaningful. The data which are presently collected have not led to major decisions. Health care problems can be discovered without the institution going through the necessity of developing criteria as the first step. The accuracy of a diagnosis, the severity of the health problems, the presence of complication during or after medical intervention, and the presence of associated medical problems can be found by analyzing the laboratory data available in the record. I am not recommending that the laboratory should be the first means of uncovering problems. A physician must generate hypotheses first by obtaining a history from the patient and performing a physical examination. Then he should select the appropriate laboratory tests which will either confirm or disprove the hypothesis which was made after the initial assessment. However, since medical care evaluations are done after the patient has been treated, on a retrospective basis one can analyze the data which were collected by the physician and answer many of the questions necessary to evaluate the care given to the patient.

In 20 to 30 questions, many issues can be settled in addition to the validation of the diagnosis. Problems such as the presence of anemia, uremia, infection, and abnormality of the chest X-rays and EKGs can be translated into specific questions from which the data are available by reviewing the laboratory results. For instance, one can ask in a patient who has had abdominal surgery the question as to what was the hemoglobin before surgery, and what was it after surgery. The change from a blood hemoglobin of 14 gms prior to gall-bladder surgery to a hemoglobin of 10 gms one week post-op indicates that a complication occurred during surgery. A change of creatinine level of 1 mgm prior to surgery to 3 one week after surgery is an indication that the patient became uremic during his hospitalization. The possibility of infection during hospitalization can be documented by analyzing the results of bacterial cultures which were done during hospitalization, i.e., culture of the wound, of the urine, or of the blood.

Other examples would be the presence of abnormalities in the electrocardiograms when these abnormalities were not present at admission. The same type of analysis can be done for chest X-rays. One can also look at the use of drugs which the patient received during his hospitalization. For instance, if the patient was given an antibiotic, was it given for prophylaxis, and if so, was the drug used immediately before surgery, and was it discontinued two days later? Or if the antibiotic was given for an infection, what was the result of the cultures prior to use of the antibiotic and after the antibiotic was discontinued?

The system which I have just described has been tried in a variety of institutions (Patient Care Evaluation Service, 16 Thorndal Circle, Darien, Conn. 06820), and it has been shown to be effective in documenting problems which need to be addressed by the professional staff as well as by the administration of hospitals. The results indicate that the data are easy to retrieve since most often they are available in the laboratory section of the medical record. Analysis of the data will then lead of recognition of problems which require the attention to the medical staff, and the presence of these problems will facilitate the development of criteria since the problems cannot be ignored. The professional staff will need to indicate whether the problems are acceptable, and if not why not?

Conclusion

I would like to summarize by emphasizing the need to distinguish between evaluation of clinical competence from evaluation of patient care. If a hospital or PSRO wants to evaluate patient care, then other variables besides clinical competence need to be analyzed, and these variables are the contributions of the institution, the patient, and the community. The physicians should be responsible for the accuracy of the diagnosis and the appropriateness of the treatment. If, however, one is concerned in evaluating the complications that the patient has, it is necessary to know when the complication took place. (Was the complication present on the first day of hospitalization or during hospitalization?) It is therefore crucial that the profession documents the severity of the health problems at the time of admission. Changes to the better is a reflection of good care. Changes to the worse require thoughtful analysis on the part of the professional staff and institution. Certainly the length of stay review should be based not on the diagnostic label alone, but rather on the severity of the problem. As I indicated before, Stage I appendicitis should have a different length of stay review than Stage II or Stage III appendicitis. The same should be applicable to patients with diabetes mellitus and other types of medical problems.

The last point which I would like to emphasize is that manifestations of problems, especially physical, can be analyzed by evaluating the results of laboratory studies without the need to establish criteria as a first prerequisite. The Patient Care Evaluation Service (PCES) which I have described chooses to document and analyze the following issues: justification of admission; validation of diagnosis or problem; measurement of the health status of the patient at the time of admission or prior to treatment; measurement of the health status of the patient during and after treatment and utilization of services and frequency of procedures. Emphasis is given to analysis of laboratory tests, not because it is believed that medicine should be practiced through the laboratory, but because once a laboratory examination has been ordered the results of the test are easily retrievable and, more importantly, will validate the presence of the clinical problem which the physician was considering when he ordered the test. For instance, the presence of anemia will be documented by an abnormal hemoglobin and hematocrit; the presence of diabetes mellitus, by a high blood sugar; the presence of a cardiac arrhythmia, by the electrocardiographic findings; the presence of a pulmonary disease, by an abnormal chest X-ray, or an abnormal pulmonary scan, or abnormal blood gases; the possible presence of a gallstone(s) or injury to the common duct after cholecystectomy by an elevated bilirubin.

Items which have been included in the PCES are not meant to suggest that all should be done in the management of a given medical problem, but rather to gather the results if these in fact have been done. The approach used by the Patient Care Evaluation Service (PCES) will markedly facilitate the retrieval of the data, be objective, and most importantly will allow measurement of the health status of the patient at three points in time: at time of admission before treatment; during treatment; and post-treatment.

Physician-Hospital Relationships

The general economic climate, with its inbuilt inflationary trends and the swollen demand for medical services poses the threat of excessively restrictive legislation designed to control the costs of health services. Averting this threat places a responsibility upon hospitals, the medical profession and all others involved in the health care industry to exercise aggressive leadership to promote efficiency and to minimize costs wherever possible.

Leadership by the American Medical Association in promoting voluntary efforts to control the rise in health care costs and to eliminate inequitable pricing and excessive charges in health services is recognized as essential if the best interest of the public and the professional independence of the physician is to be protected.

Applying these underlying considerations to the subject area of physician-hospital relationships makes it apparent that established policy should be reviewed.

Policy Considerations

The policy of the American Medical Association is that physicians may enter into whatever financial or contractual arrangements with hospitals that the parties find mutually satisfactory. Employment of physicians by hospitals is considered acceptable under this policy as long as the hospital does not profit directly from the professional services of the physician. From the problems encountered, it is apparent that this policy affords little practical guidance to physicians who conduct their practice primarily in the hospital.

Recognizing that AMA policy is applicable only to physicians, the policy on physician-hospital relationships included a recommendation that contractual arrangements between physicians and hospitals be reviewed and approved by the medical staff. This recommendation was thought to help equalize the bargaining position of the hospital-associated medical specialists and indicate to hospitals that the medical staff as a whole and consumers have an interest in the services and charges of specialized hospital departments.

Hospital-Associated Practice

Hospital-associated medical specialists practice their profession under unique circumstances. Ordinarily, a patient is free to choose his physician and physicians enjoy similar freedom in referring patients to specialists of their choice when necessary. As a practical matter, this freedom of choice is not available when the services of certain specialists are provided to hospitalized patients. As a consequence, the hospital-associated medical specialists is immediately provided with an assured practice and income when he enters into a contractual or financial arrangement with a hospital.

The assured referral system does not argue against fair compensation for these specialists. Hospital-associated specialists are entitled to charges for the services they personally provide in accordance with the same standards of equity and fairness which apply to the charges of other physicians. They also are entitled to equitable and fair compensation for the time spent in direction and supervision of the hospital department personnel.

Cost Considerations

Automation, new labor saving techniques and improved technology have made it possible for hospital-associated medical specialists to delegate more of their work to technologists, technicians and therapists, thus contributing to a reduction in many of the costs in providing their services.

When a hospital bears part or all of the cost of maintaining departments to provide special services, this is reimbursable to the hospital on a reasonable cost basis under the Medicare program. Self-pay and privately insured patients should not be required to pay more to the hospital than the actual cost borne by the hospital for services for which the hospital is responsible.

Hospitals and physicians recognize that their primary mutual obligation is efficient service to the patient and to the community with maximum economy consistent with optimum quality of service. The attending physicians must ascertain that the laboratory and other scientific data which they apply to the problems of their patients is accurate. The

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Report of the Board of Trustees of the AMA to the House of Delegates, Annual Meeting, June, 1977.

director of the specialized hospital department vouches for the validity of the data supplied.

The increased importance of maintenance of hospital departments to provide specialized services with the maximum economy consistent with quality of service makes necessary a re-evaluation of the scientific and economic aspects of their operation. Recognition should be given to the following factors: the importance of having charges reflect the lowered costs resulting from improved and more sophisticated mechanization and methodology; the improved training of ancillary personnel that enables physicians to delegate more of the tedious and routine tasks involved in the services of the department; and entitlement to reasonable compensation for the primary responsbility for the services involved in supervision and quality control.

Recommended Policy

In reviewing the financial or contractual arrangements between physicians and hospitals, the conditions and terms should be evaluated on the basis of substance rather than form, and in light of the practical effects of the implementation of such arrangements on the costs of patient care. The following policies are reaffirmed and recommended as guidelines:

1. Physicians and hospital authorities have a mutual responsbility to cooperate and work together in effectively maintaining patient care;
2. Although final authority for granting, denial, termination, or limitation of hospital staff privileges is vested in the governing board of the hospital, it is expected that the judgment of the organized medical staff will be relied upon in the evaluation of the professional competence, education, experience, and qualifications of all physicians, including the hospital-associated medical specialists;
3. Physicians having contractual or financial arrangements with hospitals should be members of the organized medical staff and responsible to it. They should be subject to the bylaws of the medical staff and conduct their professional activities according to the standards, rules and regulations adopted by it;
4. Hospital-associated medical specialists, as well as all members of the medical staff, are expected to contribute a reasonable amount of their time, without compensation, to participation in hospital staff committee activities for the purpose of improving patient care; providing continuing education for the benefit of the medical staff; and assisting in the training of physicians and allied health personnel. Physicians who provide teaching services in excess of those ordinarily expected of members of the attending staff are entitled to reasonable compensation therefor;
5. Hospitals are entitled to recover their costs, determined in accordance with recognized standard cost-accounting principles, from the operation of departments in which hospital-associated medical specialists perform personally or supervise or direct the services provided patients;
6. The form of the contractual or financial arrangement between hospitals and hospital-associated physicians depends upon the facts and practical considerations existing in each situation. No single form of contractual or financial arrangement can be feasible for all of the arrangements that may be entered into between hospitals and hospital-associated physicians. The essential consideration is that whatever the arrangement, it is fair to the parties, promotes the interests of patients and supports the provision of high quality care and services. For example, percentage arrangements which are unrelated to the amount of time expended or the skill, education and professional expertise of the physician and result in "windfall" earnings at the expense of patients, third party payers and taxpayers should be avoided.
7. Hospital-associated medical specialists are entitled to charges for the services they personally provide in accordance with the same standards of equity and fairness which apply to the charges of other physicians. With respect to services performed by personnel under their direction or supervision, physicians are entitled to equitable and fair compensation for their time spent in such activities.
8. There should be no duplication of charges to the patient where services are not actually provided by both the physician and the hospital. Each party should receive the compensation reasonably and equitably owing for services for which each is primarily responsible. Only one of the parties is entitled to the reasonable costs of assuring the accuracy and reliability of the procedures performed in such departments.
9. Both hospitals and hospital-associated medical specialists have an obligation to serve the needs of patients and the medical staff. The primary responsibility for determining the services needed adequately to care for the needs of individual patients should be that of the attending physician subject to review by his peers.

The Minor's Right to Consent to Medical Treatment

ANGELA R. HOLDER, LL.M.

An increasing legal problem in pediatrics and particularly in dealing with adolescent patients is a question of whether a minor has the right to consent by himself to medical treatment. Most of the public discussion and litigation involving this problem have involved questions of contraception and abortion but ordinary medical treatment may also present substantial problems. Very different family situations may be presented and the probable legal consequences of each may be different. In the first instance the parent or parents are known and available for discussion of the problem and the minor who has appeared for treatment has no objection to their notification. Secondly, the parent or parents are known and available but the minor refuses to allow the physician to discuss the problem with them. Thirdly, the parent is known but is not available and cannot be located. Fourth, the minor refuses to tell the physician who his parents are and how they can be located, a very common problem with runaways. Or lastly, the parents refuse consent to treatment that the minor wishes to have. The common law rule was and is that treatment of a minor even without negligence and where the treatment leads to a satisfactory result for which the parent had not given consent gave rise to a common law action for assault and battery brought by the parents. A child at common law was considered to be virtually a chattel of his father, and the parent had a almost absolute right to make decisions about him, therefore any interference with a parent's control of the child gave the parent, not the child, a cause of action against the physician.

This rule is still undoubtedly true in all nonemergency situations where very young children are concerned. Parental consent should always be obtained before a young child is treated. Thus, for example, if a teacher wishes to have a child given medication because she thinks the child is hyperkinetic a physician would do so at his peril, without consulting the child's parents. In a genuine emergency, of course, parental consent is not required. Even when the common law rule was applied strictly, an exception was made for emergency care when the parent could not be immediately located. If emergency treatment is negligently given, of course the child may, by his guardian (who is usually his parent) sue the physician just as he would be able to do if parental consent has been given.

An emancipated minor is one who has been recognized as "one who is not subject to parental control or regulation" in a wide variety of legal contexts for many years. The precise definition of emancipation varies among the states, but an emancipated minor usually is one who is not living at home and who is self-supporting, is responsible for himself economically and otherwise, and whose parents voluntarily or involuntarily have surrendered their parental duties. Runaways probably would be considered emancipated for purposes of medical treatment. Married minors are considered emancipated in all states, and without any question at all may consent to medical treatment for themselves or their own minor child. Minors in military service are considered to be entirely emancipated. College students who are under 18 and thus not actually adults and who are living away from home, even if they are financially dependent upon their parents, are usually considered in most medical contexts to be emancipated minors. In normal circumstances medical or surgical treatment may be administered without parental consent. A child in boarding school, however, should be dealt with usually as if he were living at home. If the treatment involves minimal risk such as prescription of medication for a minor illness and could be given without notification to parents if the child were at home, notification would probably be unnecessary. On the other hand, if treatment would not be given without notification if the child lived at home, it should not be assumed that the fact that the child is in boarding school makes a difference. Most, if not all, schools require signature on a form given to the school authorities allowing them to consent to necessary emergency treatment if the parent is not immediately available by telephone, but at least consent should be obtained either from the parents or from the school authorities.

A runaway child presents a very difficult situation because, unlike a child in boarding school or college, he is not away from home with the consent of his parents. Thus they cannot be presumed to have consented to some amount of decision-making by the child alone. As a practical matter, however, if the runaway needs treatment and refuses to identify his parents or tell the physician how to locate them so they may be contacted, a physician is undoubtedly safe in assuming the runaway to be legally emancipated for purposes of giving consent. A note should be made in the record, however, to the effect that the child refuses to allow notification.

ANGELA R. HOLDER, LL.M., Executive Director, Program in Law, Science and Medicine, Yale Law School; Lecturer in Pediatrics, Yale University School of Medicine.

As a result of the increasing amount of confusion in this area, most states have now enacted what are known as "minor treatment statutes." Any physicians who treats children or teenagers should be aware of the statute which applies in the state in which he practices. Since the age of majority in all states is now eighteen, with statutes to that effect enacted after ratification of the 26th Amendment, minor treatment statutes apply usually to children from 14 to 18 although they vary widely in both age limitations and substantive provisions. Many statutes specifically provide that married and emancipated minors may consent to medical treatment without parental notification, but these provisions are largely unnecessary since common law emancipation by definition meant that these young persons could consent to medical care long before any such statutes were enacted. Also, minors who are parents may at common law consent to medical treatment of their own children without the consent of the minor's parents, meaning the child's grandparents. This was specifically included in many of these statutes, but this right also existed independently of such special legislation.

Many statutes involve specifically the problem of consent of a minor to treatment of venereal disease. By the nature of the situation, these minors invariably refused to allow their parents to be notified of their conditions. Thus, when they were told that parental consent was required, they refused treatment and went to spread the disease further. For obvious reasons, VD was the first problem about which these statutes were enacted, and the child's right to consent to VD treatment has by now been legislated in almost all states. Even in the absence of a special statute, however, it is almost impossible to believe that any court would find a physician liable for treating a child for VD without parental consent, since the condition can clearly be considered an emergency.

The same problem may arise regarding treatment for drug abuse. There are fewer statutes allowing treatment for drug problems than there are for venereal disease, but many do exist. Even in the absence of a statute, however, a child with an acute drug problem who refuses to tell his parents that he needs treatment would probably be held to constitute an emergency, since the societal and personal consequences to the child of the addiction are so profound.

Most minor treatment statutes, however, provide a specific age at which the minor may consent to treatment for any medical condition. Any physician is held to know the statutes which apply in his state and could not defend an action brought by parents on grounds of ignorance of the law. There have been many attempts to extend these statutes including the Model Act drafted by the Committee on Youth of the American Academy of Pediatrics and the Pediatrics Bill of Rights, adopted by the Board of Trustees of the National Association of Children's Hospitals in 1974, both of which were proposed legislative models providing for more sweeping guidelines for consent to treatment by minors and for uniform ages and substantive provisions in all states.

There is no statute in Connecticut providing for general medical treatment of minors without parental consent; such statutes do, however, exist for treatment specifically of drug problems and venereal disease. Each statute further indicates that the minor is personally responsible for the cost of care. The venereal disease statute specifically indicates that the bill for treatment should not be sent to the parents. This provision is probably more important than is immediately obvious because any attempt at protecting the minor's privacy is immediately vitiated when parents receive medical bills and undertake to discover from their child why the bill was incurred.

Excluding the specific provisions of statutes, however, there is no decision which can be located in the past 20 years in which a parent has recovered damages even in absence of a minor treatment statute for treatment of a child over 15 without parental consent. This has become known as the "mature minor rule". There have been a few cases in which the issues have been raised and the parents lost all the suits. Although there have been remarkably few decisions on this subject, there has been considerable discussion of the issue in legal journals. One authority concludes that from the decisions available, inferences may be drawn about the types of situations in which courts would apply the mature minor rule and dispense with the requirement of parental consent. He concludes that the cases in which the rule has been applied, generally have the following similarities: (1) the treatment was undertaken for the benefit of the minor rather than for a third party. Under no circumstances, for example, should a minor of any age *ever* be used as a transplant donor without parental consent and probably not as a blood donor; (2) The particular minor is at least 15 or over and is considered as an individual to have sufficient mental capacity to understand fully the nature and importance of the medical care proposed and; (3) the medical procedures can be characterized by the courts as something less than "major" in nature.

The mature minor exception to requirements of parental consent, along with the emergency exception to the requirement of parental consent, appear to constitute a sensible rule. It is likely that a "medical emergency" in these situations does not have to be characterized as a life-threatening situation but rather would be construed to include an acute illness of any type. A runaway with an acute appendix probably would not die before his parents could be located but most courts undoubtedly would have no hesitation in concluding that surgical treatment was properly given without it, assuming that the minor under statutory authority or otherwise is considered to be capable of consenting to treatment.

The same standards of informed consent are applied to the minor as to an adult. The primary reasons in fact for requiring parental consent is that children are considered to be fundamentally incapable of giving a truly informed consent. Thus in the last analysis the child's capacity to understand a discussion of the risks and benefits of treatment is the criteria for obtaining his consent for that treatment. In any case involving either an adult or a minor patient, the doctrine of informed consent may be defined as "the duty to warn a patient of the hazards and possible complications and expected and unexpected results of the treatment." The patient must also be clearly told what alternatives, if any, existed for the proposed treatment and what the consequences of no treatment may be. As the probability or severity of the risk to the patient increases, so does the duty to inform him of it. Further, the duty to warn seems to exist inversely to the necessity of the procedures. There is a common assumption by the courts that where elective treatment, such as cosmetic surgery, is considered, the duty to warn the patient of all risks is virtually absolute.

If the patient, adult or minor, does not understand all material facts, any consent that he does give will be held to be legally ineffective. In an informed consent case, if an untoward result occurs of which the patient should have been warned and he has not been, he has a cause of action for failing to obtain his consent even though no negligence is shown. The basis of the complaint is not that the procedure has been performed negligently but that it was performed at all. In some cases with adult patients, a physician does have what the courts term "therapeutic privilege": the right not to disclose information about risks if he thinks, with the use of reasonable medical judgment that the patient would be upset by disclosure. This concept of therapeutic privilege presumably cannot apply to a minor patient. If the child's condition is such that therapeutic privilege would be considered justified if he were an adult, the parents should clearly be notified, because under these circumstances the physician is assuming that the child cannot handle the situation sufficiently well to give an informed consent.

The original standard of disclosure of information in informed consent cases was whether or not the reasonable medical practitioner in the same or similar circumstances would have disclosed the information. Proof of the community standard of disclosure by expert testimony was required before the plaintiff could prevail, as a matter of law.

In an increasing number of states, however, courts have held that the scope of disclosure that a physician must make to a patient is not to be determined by what "the reasonable physician" would disclose under similar circumstances, but by the patient's need to understand what the reasonable patient needs to know. This rule, that the patient's needs, not standard medical practice determines what the patient has the right to know, has been adopted in New York, California and the District of Columbia, and there is every reason to believe that this standard of disclosure will soon become a majority, if not the universal, rule in this country.

Therefore, in dealing with minors it is particularly necessary that they be fully informed. If a child's capacity to understand risks, benefits and alternative methods of treatment is subject to any question, treatment without parental consent should not be attempted except in cases of acute emergency. Furthermore, if the minor's capacity to understand is not in question, the physician should be extremely careful to disclose all material risks. If the physician thinks that there might be any reason he would not tell a minor something that he would normally tell an adult patient, or would not tell him anything that he would tell the parents of the same minor about the proposed procedure, he should immediately conclude as a matter of logic that parental consent should be obtained, or if the parent is not available, that a court order is necessary. The nature of the situation is such that any court would be likely to construe any withholding of information from a minor as failure of due care in treatment although there are no cases on this subject as yet.

In any situation where a minor has no objection to his parents' knowledge, the parents should be asked to consent. It is always preferable to attempt to involve the parents. Where the minor objects to notification of his family, reasonable attempts to convince him that they are likely to be more understanding than he thinks should be attempted if there is in fact any basis for thinking so. If the minor remains adamant, however, and appears to be capable of consent to treatment, careful documentation of genuine understanding should be made. If the proposed procedure is one that carries any appreciable degree of risk, in which category I would include all surgical procedures using general anesthesia, in addition to a carefully worded consent form, the minor should sign a statement that he has refused to permit notification of his parents.

The concept of a two part consent form might be considered, except in an acute emergency. A series of written questions based on the information given the minor about the procedure should be answered in the minor's own handwriting. This questionnaire would serve as an immediate indication to the physician of the degree to which the minor has an genuine understanding of what he was told, and should any legal problems arise from the parents later, would serve as the best possible evidence that the minor really gave a truly informed consent. If the minor patient cannot answer the questions at all, he should probably be presumed incapable of consenting to any procedure carrying any substantial risk. If an emergency is presented, in that case the physician has no recourse but to obtain a court order if the child refuses to tell him where his parents may be contacted.

If the minor has the right to consent to treatment, it is probable that he also has the right to refuse treatment. The only two cases of which I am aware have held that a 16 year old could not be forced to have an abortion over her objections but at the request of her mother; and a teenage boy who had been committed by his parents as a voluntary patient in a mental hospital was held to have the right to leave. In both, the courts construed the applicable treatment statutes as implying a right to refuse. The whole area of parental authority to commit minors to mental hospitals is, of course, before the Supreme Court now in the case of *Bartley v. Kremens*. In any case where a child can be treated at his own request, under minor treatment statute or otherwise, it is quite probable that the same child has the right to refuse treatment, at least if the condition is not life-threatening. The two concepts appear to be interlocked, and a child who has the legal right to consent probably has an equal right to refuse to consent. Since young children have no right to consent, conversely it seems logical that they have no right to refuse.

At present no decisions can be located in which an adolescent on reaching the age of majority brought an action against a physician for assault and battery for treating him over his objection but at the request of his parents. Such a case is, however, not at all unlikely at some future date, particularly if the treatment is one that causes permanent disfigurement of the young patient. In a situation where the parents wish to have a child treated but an adolescent refuses, the prudent physician probably should obtain a court order, as he would do if the parents were the ones who has refused to allow a blood transfusion for a dangerously ill child.

Secretary apologizes

Secretary Apologizes . . . HEW Secretary Joseph A. Califano, Jr., in a letter to the AMA, expressed his regret at the large number of inaccuracies in the listing of physicians who received Medicare funds in excess of $100,000 in 1975. A portion of this list was checked by the AMA and was found to contain widespread inaccuracies.

In his letter to AMA Executive Vice President James H. Sammons, M.D., the Secretary stated:

> I am deeply distressed at the number of errors, and I regret any embarrassment that may have been caused to any of your individual members. I have asked Robert Derzon, the Administrator-Designate of the new Health Care Financing Administration, to review the entire matter with the view toward taking whatever actions are necessary to prevent a situation like this from arising again.

The Secretary also announced that HEW will continue to publish the amount of money physicians receive from Medicare and will expand it to include other providers. Mr. Califano wrote:

> I am committed to making more information public about the costs of health in our nation. In the future, we will make significantly more information available to the public. There will be no arbitrary cut-off on care at $100,000 for the fees of doctors, and information about other health care providers will also be available to the public. We will do everything in our power in the future to make certain that, when we publish the amounts of money that institutions and individuals receive from the Medicare program, they have been carefully checked and are as accurate as possible, given the enormous scope of the program.

The Secretary concluded his letter with the promise that such inaccuracies will not be repeated.

> With respect to the 1975 list, the Department did not adequately fulfill its responsibility. I intend to see that it does in the future."

Standards for Sponge, Needle, and Instrument Procedures

Safe practice, insuring high quality care of the patient undergoing surgical intervention, should include procedures of counting sponges, needles, and instruments. Every hospital and operating room should establish specific written policies and procedures for sponge, needle, and instrument counts, which should define the materials to be counted, the times when counts must be done, and the documentation required. These policies, formulated jointly by the medical/nursing staffs, must be approved by hospital administration and the procedures designed to comply with hospital policy.

Criteria to be met in counting sponges

1. Sponges should be counted on all procedures.
2. Sponges should be counted in the operating room by the scrub personnel and circulating nurse prior to the beginning of the operation, before closure begins, and when skin closure is started. Additional counts may be indicated according to hospital policy or circumstance.
3. Additional sponge counts should be taken before any part of a cavity or a cavity within a cavity is closed (eg cesarean section).
4. Types and sizes of sponges should be kept to a minimum. All soft goods inserted into the wound and not intended to be left in the wound after closure should contain an x-ray detectable element.
5. Counted sponges should never be taken from the operating room for any reason during a procedure.
6. X-ray detectable sponges should never be used for dressings.

Criteria to be met in counting needles

1. Needles should be counted on all procedures.
2. Needles should be counted in the operating room by the scrub personnel and circulating nurse prior to the beginning of the operation, before closure begins, and when skin closure is started. Additional counts may be indicated according to hospital policy or circumstance.
3. Scrub nurses should continually count needles during the procedure, and needles should be handed to the surgeon on an exchange basis.
4. Used needles should be kept on a needle pad to insure their containment on the table.
5. Needles should never be taken from the operating room for any reason during a procedure.
6. Needles broken during a procedure must be accounted for in their entirety.

Criteria to be met in counting instruments

1. Instruments should be counted on all procedures.
2. Standardization of instrument sets should be established for ease in counting with the minimum numbers and types of instruments on the set.
3. Instruments are counted in the instrument room as they are being set up and in the operating room by the scrub personnel and circulating nurse prior to the beginning of the operation and before closure begins. Additional counts may be indicated according to hospital policy or circumstance.
4. Instruments should never be taken from the operating room for any reason during a procedure.
5. Instruments broken or disassembled during a procedure must be accounted for in their entirety.

In general

1. Scrub and circulating personnel must carry out counts together and out loud.
2. All counts should be recorded immediately after being taken. The circulating nurse should initial or sign the count at the time it is made, since she is responsible for all counts. Nonhospital employed personnel (ie private scrub nurse or technician) must comply with the procedure of the hospital. If there is any deviation from the policy, the circulating nurse must report to the OR supervisor, enter a note on the record, and initiate an incident report.
3. Incorrectly numbered packaged sponges must be isolated and not used during the procedure.
4. If a count is incorrect, the circulating nurse notifies the surgeon, a search is made for the item, and appropriate measures are taken (ie, x-ray of patient is taken before patient leaves the operating room) and documented by the circulating nurse according to hospital policy.
5. Omitted counts due to extreme patient emergency must be documented on the nurse's notes by the circulating nurse.

Rationale

1. Counts are necessary to provide quality patient care.
2. It is the surgical team's responsibility to take all reasonable measures to protect the patient.
3. Counts are essential and are intended to prevent accidents to patients during surgery.
4. Because it is the nurse's responsibility to supply the operative team with sponges, needles, and instrument supplies to be used in surgery, registered nurses share in the legal responsibility in accounting for numbers of instruments, sponges, and needles following surgical procedures.
5. It is becoming more common for nurses to be included with physicians and hospitals as defendants in operating room malpractice cases.

6. "Courts now may be considering or adopting the present day medical point of view that responsibility for work delegated to other trained, competent, professional persons may properly be that of persons to whom the work is delegated."[1] The nurse in charge of the operating room must be certain that the individual to whom duties are delegated is qualified and capable of performing competently by virtue of education, experience, and legality.

7. "Considering the increasing number of malpractice lawsuits, the increasing tendency of courts to expand the circle of liability, the relatively easy and simple means available for counting such, the risk of liability on operating room personnel, and the risk of injury to the patient, there seems to be little, if any, justification for not counting sharps in all operating room procedures."[2]

8. Stability of instrument inventory is a benefit of counting instruments.

NOTES

1. T L Fisher, "An important recent decision: Who's responsible for sponges used during an operation?" *Canadian Medical Association Journal* 110 (March 2, 1974) 593.
2. Jack B Russell, "Medico legal necessity for counting sharps," *Surgery, Gynecology & Obstetrics* 139 (December 1974) 919.

REFERENCES

Dinsmore, Richard J. "OR nurse's liability in needle count." *AORN Journal* 20 (December 1974) 1002-1004.

Fisher, T L. "An important recent decision: Who's responsbile for sponges used during an operation?" *Canadian Medical Association Journal* 110 (March 2, 1974) 590.

Gouge, Ruth L. "OR nurses face potential liabilities." *AORN Journal* 20 (October 1974) 660-665.

Gouge, Ruth L. Answer in "The experts research: Q & A" by Rose Marie McWilliams and the Professional Advisory Committee. *AORN Journal* 18 (December 1973) 1213-1214.

McWilliams, Rose Marie and the Professional Advisory Committee. "The experts research: Q & A." *AORN Journal* 20 (September 1974) 476-479.

Regan, William Andrew, "Operating surgeon held responsible for sponge error." *Hospital Progress* 55 (June 1974) 26-29.

Russell, Jack B. "Medico legal necessity for counting sharps." *Surgery, Gynecology & Obstetrics* 139 (December 1974) 919.

Springer, Eric W. "Lost sponge in classic situation." *Hospital Topics* (July/August 1974) 54-55.

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Committee lauds Dr. Thayer for work in blood bank

Since 1956 much of the Connecticut Blood Program's destiny has been guided and influenced by John E. Thayer, M.D. He has been both a member and the Chairman of the Connecticut State Medical Society's Blood Bank Committee, more recently called the Committee on Organ and Tissue Transfer. These words are written as a tribute to his achievements, particularly as chairman, now that he has handed over his responsibilities. The Committee has functioned as a joint body serving both the Society and the Blood Program in a manner formally defined as advisory but which, under Doctor Thayer's chairmanship, consistently achieved leadership.

The preeminence of the Connecticut Blood Program among the varied systems of blood services in the United States has come from many sources but among individuals John Thayer has contributed enormously. His long experience in the Department of Pathology at St. Francis Hospital, Hartford, provided him with an excellent perspective of patients' needs for blood transfusion services. His devotion and responses to those needs show unmistakably in the Connecticut Blood Program. The results of his efforts were manifest long before the term Consumer Advocate was coined.

To the personal and institutional volatility that have been occasional and necessary features of the committee's work, Doctor Thayer brought personal equanimity, the confidence of his colleagues and a well matured sense of humor. He turned pitfalls into progress.

Those who care to trace these qualities to their sources will find them flourishing in Vermont, but refined to perfection in the vicinities of Burlington, The University of Vermont and the Northeast Kingdom where John acquired them so well.

As the committee and the Society we offer him a small part of the applause and gratitude that we and all Connecticut owe him.

—Ronald Beckett, M.D., for the *Committee on Organ and Tissue Transfer.*

Month in Washington

Strong pressure from President Carter and other Administration officials and a desire by Congress to get some handle on rising health care costs appear to be weakening Congress' previously firm sentiment against the Administration's Hospital Cost Containment program. Some Hill observers now believe the plan—in some form or other—is picking up enough momentum to clear Congress this year, a possibility viewed as remote earlier in the session.

The Cost Containment plan calls for imposition of an annual ceiling of about nine percent on all hospital revenue increases. It places a $2.5 billion limit on capital expenditures. Major health provider groups, including the American Hospital Association and the AMA, have assailed the plan as a revival of the discredited wage and price freeze several years ago.

Other versions of the Administration's plan, however, are taking shape in the Congress. Here are some recent developments:

**Rep. Paul Rogers (D-Fla.), Chairman of the House Commerce Subcommittee on Health, has introduced a modified version of the Administration bill and held one day of public hearings.

**The House Ways and Means Subcommittee on Health headed by Rep. Dan Rostenkowski (D-Ill.) has started marking up a measure following introduction of a version by Rostenkowski.

**Sen. Edward Kennedy (D-Mass.) called his Senate Human Resources Subcommittee on Health to put together a bill containing major elements of the Administration plan.

**Sen. Richard Schweiker (R-Pa.), ranking Republican on Kennedy's subcommittee, has introduced an alternative plan that would beef up state control of hospital costs and prohibit capital expenditures for 18 months. Schweiker has been joined by Sen. Thomas McIntyre (D-N.H.).

Public hearings now have been completed on the issue by three of the four Congressional committees with jurisdiction. The exception, the Senate Finance Subcommittee on Health, has conducted public sessions on legislation by Subcommittee Chairman Herman Talmadge that is limited to restrictions on Medicare-Medicaid spending by hospitals, but could be broadened to include all revenues.

Congress takes a month vacation during August and leaders are pushing for an October recess date. This does not leave much time for the four involved committees to resolve their differences and agree on such a volatile issue as controls on one segment of the economy.

The American Medical Association has testified that the Rogers' bill "unfortunately retains those programs which would in effect allow the HEW Secretary to determine revenue increases, capital expenditures, and utilization rates." The arbitrary limitations on revenue increases "would prove to be disastrous for many hospitals, especially to the already more efficient hospitals and those hospitals which are located in rural areas," said Edgar T. Beddingfield, Jr., M.D., Chairman of the AMA Council on Legislation.

The major changes made in the Administration plan by Rogers would extend the government's power to regulate the purchase of new major medical equipment, provide incentives for hospitals to eliminate services, and award hospitals for cutting costs. Dr. Beddingfield lauded the concept of incentives, but questioned the details of the new plan.

The AMA official said that financing incentive payments to hospitals out of general revenues raises constitutional questions. "Should Congress pay out of the general treasury amounts to hospitals for providing services for which the federal government otherwise has no obligation to pay?" he asked, noting that all in-patients, not just federal beneficiaries, would be covered.

Under the measure, expensive equipment purchased for use in a physician's office could be subject to a certificate of need restriction. Dr. Beddingfield

continued on page 588

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attacked this provision. "Any initial inroads into medical practice seeking to control physician offices or the acquisition of practice equipment would jeopardize the independent practice of professions," he said.

Dr. Beddingfield continued: "Such an action could only lead to more stringent controls eventually controlling practice locations and extent of services available and affecting quality of care. Medical practice—the physician's office in particular—should not be treated as a public utility."

The Carter Administration also opposed the amendments recommended by Rogers. Sticking to their game plan of fighting for its proposal with no changes, HEW officials told the House Commerce Health Subcommittee that the suggested changes "have much long-run potential," but "often raise more questions than they resolve."

Karen Davis, Deputy HEW Assistant Secretary for Planning, said "We simply do not have the time to refine proposals (such as those in the Rogers bill) to ensure that they have the desired effect and preserve administrative simplicity." The Hospital Cost Containment Act as originally proposed should be enacted "as the first and desperately needed step in devising a permanent solution to the critical national problem of controlling rising health costs," she said.

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A bill before the Congress would mandate that prescription drug packages would carry a warning label stating:

> "Warning to physicians and patients—the federal Food, Drug and Cosmetic and Devices Administration approves this drug or device for the following purposes and no other purpose."

Drugs would be accompanied by patient package inserts approved by the FDA explaining in layman's language the uses of the drug, a description of the side effects, and so on.

This provision of a sweeping drug measure proposed by Sen. Edward Kennedy (D-Mass.) was attacked by the AMA. "By setting out in bold print and by directing the warning to physicians and patients, the statement raises a spectre that a drug as prescribed is dangerous," said Lowell H. Steen, M.D., a Member of the AMA's Board of Trustees. "We believe that such a phrase unduly intrudes into the practice of medicine in an attempt to limit in some manner the use of a drug," said Dr. Steen.

"To mandate a drug label warning that in any way suggests that a drug can, because of special federal approval, be used properly for only certain conditions and not for any other condition is an improper attempt to restrict the necessary freedom of the physician to prescribe the needed treatment," Dr. Steen said.

The AMA supports certain additions to the drug labeling requirements and has drafted a bill that would require certain information to be listed on the drug container dispensed to the patient.

But, he told Kennedy's Health Subcommittee, "It is highly inappropriate to include a requirement that the proposed warning be placed on all drug labels. Moreover, we believe that all drugs should not be required to have patient package inserts. The preparation and distribution of the information to be required in the patient package inserts pose a number of problems. Patients differ in their drug requirements with respect to dose, duration of therapy and adjunct medication. They also differ in therapeutic response, adverse side effects and toxic reactions. 'Patient package insert' might be helpful to some patients, but might confuse, frighten or even harm other patients."

The most appropriate source for a patient desiring drug information is the physician. The AMA official testified "We do not believe that it is desirable for the Commissioner of FDA to publish mini-treatises on drug usage for dissemination to patients for all drugs. A professional judgment on what is the best treatment for the patient is the physician's responsibility and is made on the basis of extensive training and experience."

Dr. Steen spoke favorably of a Kennedy provision for an expanded drug-testing program for drugs that have not yet received new-drug application approval. This, he said, "could be highly beneficial in bringing new drugs and chemical entities to the market as expeditiously as possible. There have been indications that our present system of new-drug approval has led to a relative drug lag between the United States and other industrialized countries."

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In remarks before a recent conference in Washington, D.C., on the subject of controlling health care costs, Lewis Thomas, M.D., President of Sloan-Kettering Cancer Center, shared these following thoughts with those present:

"The roster of major diseases that have become controllable within my lifetime made up the main body of the textbooks of medicine and pediatrics in the 1930's. Most of this transformation occurred in the field of infection, thanks to immunization and the antibiotics, but there have been improvements of comparable magnitude in other fields, notably hematology. And the change is still going on.

The President's Page

On assuming the presidency of this Society, I reported on this page plans for our innovative involvement in the socioeconomics of the delivery of medical care. I pointed out the need for doctor involvement and doctor leadership in the continuing concern of all health professionals in the problems inherent in the inflationary spiral of health costs. I felt that the doctors of this state, through our personal daily and intimate knowledge of patient care, can contribute greatly to solutions of common problems. I also indicated my feeling that the role of the State Medical Society should be catalytic: to attempt to harness the interest and concern of the membership and to lead, develop, encourage, stimulate, and indicate roads we could follow in using our special talents and knowledge toward common goals. .

It is appropriate then to inform the membership not yet involved in the process as to what we have planned and what we have accomplished. The Council of the State Society has given its unanimous endorsement to the programs and attempts now initiated and those yet to be developed. The Council agreed that new directions should be sought and new techniques tried to attempt to contain costs without minimizing the quality of medical care rendered.

To initiate our program, on July 19th, the Medical Society invited to a meeting chiefs of staff and administrators of all the general hospitals of this state. We presented to the group our above-noted beliefs that doctors, who are directly or indirectly responsible for much of the medical dollars spent, should therefore be deeply involved and greatly concerned over the way those dollars are indeed spent and the ways in which they can be conserved. It was of course reiterated that we recognize the need to keep paramount the necessity for maintaining the quality of care rendered.

We thereupon suggested to the representatives of the eighteen general hospitals present that one valuable technique might be the formation in each hospital of a committee of staff physicians to be responsible for the evaluation of patterns of care and their impact on hospital costs. These committees, we believe, should function in the closest cooperation with the hospital administrators and should be charged with the responsibility for consultation with and utilization of other segments of the hospital professionals. Discussion of these proposals was direct and thorough. Since the New Britain General Hospital had such a committee in place, much attention was focused on their format and experience. After further consideration, the group passed a resolution overwhelmingly supporting the program by recommending that all general hospitals organize such committees for the above mentioned purpose.

It is of course admitted that this is merely a first step. Our Society intends to continue to be catalytic. We also recognize that progress will vary in kind and extent and that each hospital must inevitably develop programs that would not fit each separate hospital situation. However, it is reasonable to expect to find certain practices and solutions often applicable in some other hospitals to minimize the escalation of health care costs.

It is now appropriate to point out that I previously stated that we should be travelling two parallel roads in this Society's attempt to help stem rising costs. And so, by the time this is in print, the State Society will have convened a seminar of physicians, a pharmacist, and an administrator to study in depth the use, overuse, or injudicious use of antibiotics in the hospital setting. Our goal will be to improve the quality of care, and not incidentally, reduce the amount of money spent in general hospitals for expensive antibiotic therapy.

Furthermore, it was our intent to have had the invited broadly-based audience join with the panel in discussion to implement any positive results we may have achieved. With the active participation of this broadly-based group, we could in concert establish and report findings, disseminate them to our many component parent organizations, and from many sources help effect their local implementation.

Our ambitious goals, admittedly experimental, may require other techniques for their realization. In any case, the Society recognizes the effort required and intends to continue its active pursuit of its objectives.

Isadore H. Friedberg, M.D.
President

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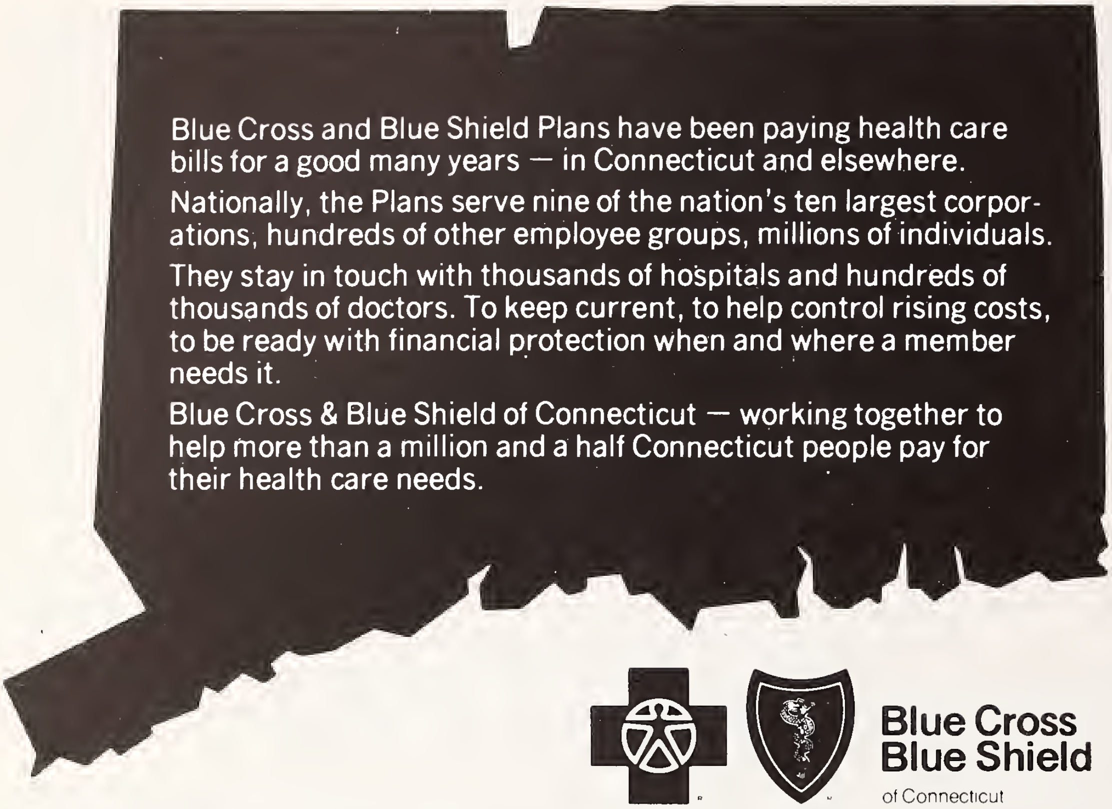

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Reflections from the Dean's Office

ROBERT U. MASSEY, M.D.

The beginning of the academic year is a time for stock-taking and planning, reviewing the year passed from the perspective of summer's end, and making proposals for the year after the one now underway. Once the fall semester has begun, it is difficult, even dangerous, to tamper with it.

Faculty and student retreats have become a way to give life to this stock-taking and planning impulse. Great effort goes into the preparation and, if the times are propitious, something important may happen: a new program may be born, a new insight gained, and even the school's direction changed ever so slightly to accommodate to the world outside.

Someone has said that unless change is necessary, it is necessary not to change. Universities, professional societies, hospitals, and churches must have a great momentum, a great resistance to change to qualify as institutions. The Indo-European root *sta* implies fixity, as in statue, stand, stable, establishment, and institution; some things have to be relatively fixed in order for anything relatively to change.

We are caught in the winds of change which began before the Renaissance, freshened with the beginnings of modern science in the 17th century, and accelerated through the nineteenth century, and into the twentieth. There are signs that the wind may be moderating. Too much change for too long may not be borne easily by our species; some are asking whether unexamined change may be worth having. Uncharted progress is rarely safe, and leads to harbor only by the remotest chance; but what about when there are no charts?

Medicine, hospitals, and medical schools cannot yet rest in the slackening winds. The science and technology, which drive us, are affected by social changes, but generally follow laws of their own nature. Their tendency is toward accelerating growth which can only be stopped by restrictive laws or withdrawal of support. Even if the rate of historical change should slow in the West, scientific knowledge and technologic development will continue to grow, compelling changes in medicine and in the economics of medicine.

Unless we take the cynical view that all decisions about health care are to be made for political and economic reasons, we shall need to treat some of the changing fashions in politics with careful neglect and occasional contempt. There are times when we need to be in the world but not of it.

Therein lies the difficulty. The university believes it can only achieve its proper ends in perfect freedom—freedom to select, freedom to teach, freedom to investigate. Properly it is accountable to its supporters, but subject to truth. Hospitals and physicians should know best how to care for their patients, and should have the authority that goes with so heavy a responsibility, but their accountability now has the effect of putting other hands in charge.

New curricula will be designed and old ones changed to please supporters in Congress or appropriations committees in state legislatures. Hospitals will be asked to share with us and each other quotas for first year residents or lose approval for residency education. They will decide about new programs or new equipment with the commissioner in mind, and physicians will admit and discharge patients with the regulators in mind.

This may all be necessary and historically predictable. Our perceived obligations to our patients, to our students, and to science may have led us too far from the world of economics and politics, and we may now be required to learn to make decisions in the normal way, following the political and economical fashions. Or perhaps, it is more complicated than that: we may have betrayed our trust. We may have managed resources carelessly; we may not always have been singleminded in our pursuit of truth, or in the care of our patients. It would be remarkable indeed if physicians and scientists, alone of all humankind, were without self interest.

Nevertheless this is a time for self examination, a time to be wary of temptations to denial. It is a time for clear thought, and the times may favor that:

> "Depend upon it, sir, when any man knows he is to be hanged in a fortnight, it concentrates his mind wonderfully."[1]

We have not thought in economic and political ways; we need to begin to teach ourselves and our students to do that. But more important, we need to be sure, in our planning and in our teaching, that they and we do not fall into that manner of thinking exclusively. The work of universities, the management of hospitals, and the practice of medicine have to do with truth and with charity; economics and politics must be kept in their proper places.

ROBERT U. MASSEY, M.D., Dean and Professor of Medicine, University of Connecticut School of Medicine, Farmington.

REFERENCES

1. Johnson, Dr. Samuel, from Boswell, *Life of Samuel Johnson* (September 19, 1777)

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EDITORIAL

To Maintain Academic Integrity

The prospects for re-enactment of legislation for the support of the development of health manpower have been a matter for continuing discussion ever since the previous version of the legislation expired several years ago. I have [previously] reported to the alumni on some of the progress of these deliberations and have expressed my concerns over various provisions that have been proposed in one or the other of the Congressional committees that have jurisdiction over legislation concerned with health.

As Dr. Viseltear has related in describing the history of the current legislation, during the long period that the new legislation has been under consideration there have been tentative provisions that would have placed various conditions on the eligibility of medical schools for the receipt of the general financial support that is referred to as "capitation." A number of those proposed conditions would have put Congress in the position of legislating (at least for those schools that accepted capitation support) admission requirements, specific items of curriculum, methods and places of teaching, and even internal departmental organization. Although most or all of those particular conditions, as they affect schools of medicine, have been omitted from the legislation finally enacted in 1976, that legislation does include several provisions that would violate the principle of academic self-determination.

The requirement to increase the share of affiliated residencies devoted to what has been defined as "primary care" has not been a major issue between the medical schools and the federal government. There are several reasons why this provision has been considered more acceptable than that concerned with American medical students enrolled in foreign schools. The percentage goals are set, at least initially, as national standards and are not imposed on individual schools. Each school can, for the time being, go its own way although some would have great difficulty in meeting the requirements should the national goals not be met. In addition most schools can rationalize their positions by claiming that the residencies with which they are affiliated are not primarily their responsibility, but that of the affiliated hospitals. In this view, the schools are being used as a tool to effect changes in the behavior of hospitals, but the academic freedom of the schools is not being infringed.

An additional aspect that is a consideration, although it is questionable that it ought to be, is that the provision for modifying the distribution of residencies is seen as serving a broad national purpose as defined by Congress rather than the narrow special interest represented by American citizens studying abroad. I question whether this ought to be a consideration because of the need for protection against the fallibility of the Congressional perception of national needs. It can appropriately be argued that the academic process needs protection against the consequences of such fallibility in much the same way as do free speech and the press. In any case, more than 40 percent of the residencies in hospitals currently affiliated with Yale fall into what is defined in the health manpower legislation as primary care so that no decision would be required of us for at least two years. If we are convinced of its desirability, we could probably meet the 50 percent requirement of the third year without major dislocation.

The provision that has raised the most urgent question of acceptability is that which would require each school to admit to its third-year class its appropriate share, as determined by the Secretary of Health, Education and Welfare, of American students who have completed two years of medical school outside of the United States and who have passed Part I of the National Boards. The schools would be barred from setting any additional requirements for entrance. In effect, Congress has legislated standards for admission, denying to schools the right to set their own requirements above the minimum. The issue is not the qualifications of the particular group of applicants who are covered by this provision but whether schools should accept the right of government to assume a function that should be the sole prerogative of academic institutions. I do not believe that it is a matter of the damage that would result from accepting the small group of extra students that would probably be our share, but the harm that might result from conceding the right of gover-ment to set our admission standards. Once such an infringement of academic prerogatives had been accepted as precedent, it would be more difficult to defend against even more damaging infringements (which, the history of the legislation indicates, are virtually certain to emerge when the legislation next comes up for renewal). I, therefore, believe that we must stand on principle and reject capitation support if acceptance means that we can not remain the sole judges of candidates for admission. Having established that we stand on principle by foregoing the capitation support, we could then consider whether our posture would be made clearer were we to accept our share of student transfers chosen, however, to meet our own standards of acceptability.

Perhaps a few words might be said about the consequences of declining to accept capitation support. Were the amount appropriated for this purpose to be equal to the full authorization ($2000 per student) our capitation grant would be about $800,000 per year. Since the appropriation rarely is at the level of the full authorization a more likely figure is between $500,000 and $600,000. This is the income we would be forgoing, and it would clearly be a hardship to do. Our budget, drawn up on the assumption that we will not receive capitation funds, can, at least in the near future, be balanced without cutting back on any present activities. It would, however, greatly impair our ability to make needed improvements in our physical facilities for teaching and research and to add faculty strength in areas that we currently consider need to be strengthened.

An additional problem is created by the provision in the law that makes ineligible for federally guaranteed loans the students of schools that do not meet the requirements for capitation support. This would create a need for additional loan funds within the school or at least a fund to insure lenders against loss. Currently federally insured student loans amount to approximately $450,000.

I think it is clear that rejection of capitation support will create real hardships. However, the problems have been discussed with faculty and with students and I believe they are prepared to accept them if it is necessary to do so in order to maintain our integrity.

Robert W. Berliner, M.D.

Dean of the Yale School of Medicine

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Cost Control

I recently had the interesting experience of attending a conference called by the Connecticut State Medical Society on "Controlling Hospital Costs." Those invited included administrators and heads of medical staffs or their representatives.

As a recently elected Chief of Staff I could readily appreciate the keen interest on the part of my colleagues in lowering the burdensome tab on even the briefest of hospital visits. As Director of the Laboratory at my hospital I was not surprised to see the initial thrust aimed at excessive use of ancillary services, particularly laboratory and X-ray.

As laudable and necessary as these scrutinies are, their discovery is becoming a bit threadbare by repetition. The warning about unnecessary laboratory and X-ray examinations is always brought up as a solemn revelation, but the subject is hardly new.

We have been at work since I began my pathology residency (24 years ago) in trying to educate our colleagues in the intelligent use of laboratory facilities and I have spent more than two decades in my professional specialty trying to develop cost effectiveness in the lab. I am convinced that most pathologists and radiologists (*and* physiatrists *and* respiratory therapy specialists, etc., etc.) have the same concerns.

Not that we should flag in our efforts, mind you. But it will require unremitting and *unending* education of our colleagues and that is one of the reasons pathologists are a valuable part of a laboratory service.

Rather than re-invent the wheel, I believe the society should cone in on a number of additional factors tending to elevate the cost of medical care— which, by the way, can be pretty expensive over and above, (or without) hospital costs. I have in mind not just climbing labor costs (another thoroughly perceived area of mounting expense) but the efficient use of manpower, not only in clinical areas but in management. I believe cost of supplies, both disposable and re-usable (and non-medical), as well as hardware, have climbed almost unchallenged. I suspect that many people in the private sector, baying most loudly about the terrible burden of medical costs are glad enough when the stock market reflects solid growth in this or that manufacturer as a result of the ever increasing market for astronomically expensive health equipment.

As consumers as well as providers of our own product, we have as much right and obligation as anyone else in the community to question all phases of hospital planning and management and should be in a position to understand and support our administrators and boards in bringing our case to the public and in resisting procrustean and mindless hacking by well meaning or politically motivated watchdog groups.

The tone of the essays I have read so far, in our and other State Journals, suggest an adversary mood between physicians and their hospitals. This is counterproductive and inappropriate. A cooperative spirit is imperative if we are to preserve our common goal of providing the best care our resources can reasonably support. We must resist being seduced by the technocrats into believing that sophistication is always good and that anything that is "on the computer" is necessarily superior to anything that is not.

As we proceed on this path of mutual aspiration we can turn our attention to the sources of increased cost outside the hospital. It is to be hoped that enthusiasm will not wane with the perception that one's own ox may get—if not gored—at least pricked in the process.

John L. Meyer, II, M.D.

CAT Scanners:
Let Us Reason Together

The *Wall Street Journal,* in its June 23rd issue, carried a lead editorial entitled, "The Cat Scanner's Foes." I have been deluged with photocopies and clippings. Why? Because I'm the member of the Board of Directors of the Northwest Connecticut Health Systems Agency who made the motion for denial of applications for scanners to the Connecticut Commission on Hospitals and Health Care by the Waterbury and Danbury Hospitals. The WSJ would probably label me a foe of advancement in medical technology and nothing could be farther from the truth. I would certainly be blind, probably crippled, and possibly dead if a lid had been placed on advancements in health care as recently as 25 years ago.

The fundamental fallacy of the WSJ's editorial is that its writer seems to be unable to understand the difference between advancement and proliferation. No one wants to see CT Scanners abolished. They have simply become outstanding examples of how unwise placement of high cost technology in too many hospitals has been a factor in the 15-17% inflation of health care costs. No one is saying that any patient should be denied access to a CT scan if that patient needs one. Milwaukee, a city of more than 700,000 souls, is served by 5 hospitals with a single scanner. The 41 towns of Northwest Connecticut have a population of under 500,000, and CT Scanners are available in Hartford (2 scanners), New Haven (3 of them), Bridgeport and Greenwich.

A case is made about the costs of transporting patients, but more than 50% of them are ambulatory and can use private or community-provided transport. Even ambulance transport is available from the Emergency Medical Service at low cost for the citizens of some towns.

One point made in the WSJ Editorial is that enough money is spent on Professional Standards Review Organizations to "equip" every hospital in the country with a CT Scanner. That contention creates a false impression. Initial cost of a CT Scanner is a relatively small item in its overall cost for—let us say—10 years. If, by the word, "equip" the WSJ meant only "installation" costs, there is no sense to the contention. The installed cost for the Danbury scanner (the higher of the two applications) was only $691,990, but the ultimate total costs for each of the two applications was $4 million over 10 years.

Considering the service areas of each applicant plus competition from presently equipped hospitals it is very doubtful that either applicant could attain 2,500 scans per year in the near future.

"A uniform cost based method for determining the technical component of charges for all CT scanning should be established to eliminate excessive surpluses or profit. This method should include amortization of equipment and remodeling costs over a minimum of five years and should be based on a minimum annual volume of 2,500 patient examinations and on *actual use above that volume*" (p. 38*).

Let us reason together. The American people are not going to stand for a continuation of double-digit inflation of health care costs. They are beginning to feel it in taxes and insurance premiums. Under-utilized, expensive machinery is a factor which can most readily be controlled. Each application for a CT Scanner which we reviewed proposed only a 40 hour week of activity plus emergent use. Assuming about 8 hours of emergent use per week, we would have a 48 hour per week utilization vs. 120 hours of down time. I'm a retired airline pilot, so I called my company to learn the utilization for a Boeing 747 airplane. It is 16 hours per day in summer and 13 hours per day in winter.

Since the CT Scanner is not affected by weather, I think we can agree that 16 hours per day is a good figure. Thereby hangs a method for determining NEED accurately. Each hospital planning ultimate installation of a CT Scanner should lease blocks of time on a currently operating scanner; that is, lease enough time over and above the scheduled use time of the lessor's machine to care for the lessee's emergencies which occur during the leased time.

For example, the Bridgeport scanner is currently in use only 8 hours per day, 5 days per week. If Danbury leased 40 hours per week outside Bridgeport's current schedule and applied the leased time to its own patients served by its own neuroradiologist and his team, the potential use at Danbury could be demonstrated. When the rate of use reached 2,500 it would be clear that a CT Scanner at Danbury could be justified.

Reference (*) has been made to "Computed Tomographic Scanning", Publication IOM-77-02 of the Institute of Medicine, National Academy of Sciences, 2101 Constitution Avenue, N.W., Washington, D.C., 20418, publication date April, 1977. It came to us after we dealt with the Danbury and Waterbury scanners. I recommend it to the reader and to the editorial board of the *Wall Street Journal.*

It was a painful process to urge denial of the applicant hospitals' requests to purchase CT Scanners. I constantly kept in the back of my mind what better ways to spend $4 million to $8 million in the 41 towns of Northwest Connecticut. That helped. 100% immunization for all children against measles, polio, whooping cough. Better care for the mentally retarded or ill. Subsidization of primary care where it is absent or inadequate.

Best of all—the saved money could well be used to help clean up our water and air.

William Karraker

Member of the Kentucky Bar Association
and retired airline pilot. Chairperson,
Mental Health Council 21, Danbury, CT.
Chairman, Review Committee
Northwest Connecticut Health Systems Agency.

Guidelines for Recombinant DNA Research*

The Council on Scientific Affairs of the AMA recognizes that the new technology that has developed in recombinant DNA research holds great promise for medicine. Not only may it improve the management of genetic and acquired diseases, the manufacture of new biological agents and perhaps allow improved nutrition throughout the world, but it promises to enhance our understanding of many biological processes.

The immediate danger of developing bizarre forms of microbial life that might have unusual capacities for producing epidemic disease are anticipated in the original guidelines of the National Institute of Health. More remote dangers of deleterious "genetic engineering," commercial abuse and military or terroristic use are larger societal issues which deserve broad discussion, so that they may be adequately dealt with if research developments bring these possibilities closer to reality. These possibilities do not warrant our national neglect of this important research area; the scientific effort will go on whether discontinued in this country or not.

The Council on Scientific Affairs recommends that the American Medical Association applaud those scientists engaged in recombinant DNA research who, when they perceived the biological hazards involved in the work, initiated precautionary measures.

The Council further recommends that the AMA approve the application of the guidelines established by the NIH in July 1976 for containment of recombinant DNA research, and urge that they be made applicable to all such research carried on within the jurisdiction of the USA by both governmental and private agencies. Not only should certified facilities have local biohazard committees, but their containment decisions should be reviewed by a scientifically qualified independent agency, analogous to the Nuclear Regulatory Commission, duly constituted to establish and enforce standards for such research. That agency should also have the function of constantly reviewing and reassessing criteria for containment decisions consistent with the guidelines.

AMA Council on Scientific Affairs

**Adopted by AMA House of Delegates, Annual Meeting, 1977.*

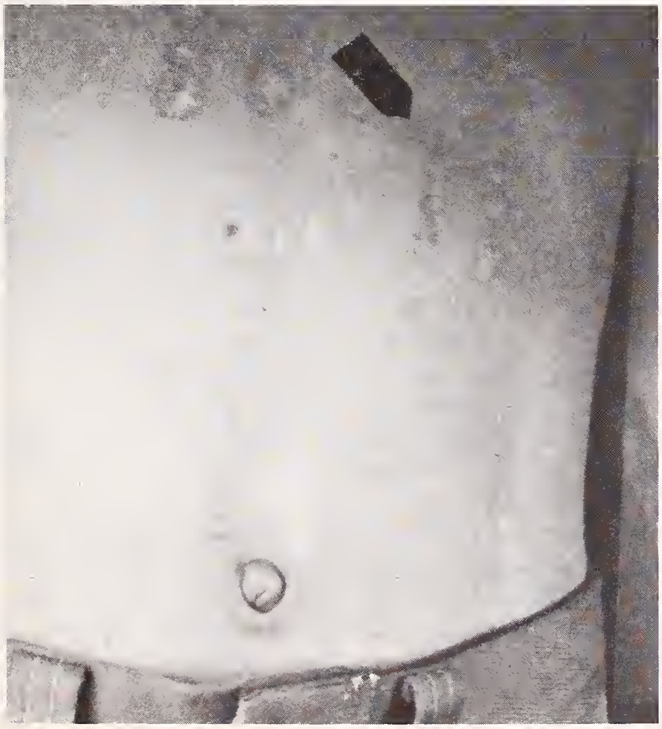
Letters to the Editor

Letters to the Editor are welcomed and will be published, if found suitable, as space permits. Like other material submitted for publication, they must be typewritten *double spaced* (including references), must not exceed 1½ pages in length and will be subject to editing and possible abridgment.

CRYOSURGERY OF NUMMULAR PSORIASIS LESIONS

To the Editor: A new approach to the treatment of nummular, non-extensive type of psoriasis utilizing cryosurgery with liquid nitrogen in the case of W.S., a fifteen year old white male, resulted in clearing of the lesions without recurrences in the treated areas. This modality may offer another choice which may be used by itself or in combination with other treatment modalities, in focal nummular psoriasis.

W.S. with a history of nummular psoriasis involving his extremities and trunk from the age of four years, underwent a modified Goeckerman treatment from August 14, 1975 to November 20, 1975 utilizing whirlpool therapy with coaltar emulsion and shampoo, ultraviolet light, and topical cortisone with and without occlusion. However, by January 23, 1976 despite continued home use of coaltar and cortisone preparations all the lesions recurred at the same sites and new lesions became apparent. At this time cryosurgical treatment with liquid nitrogen, applied with a cotton tip applicator, was initiated and Estar gel (Westwood), a tar preparation, and Valisone ointment o.1% (Schering) was continued to the non-cryosurgically treated areas. By May 21, 1976 most of the arm and trunk lesions had been treated, most lesions requiring but one such treatment with no recurrences of treated lesions noted thereafter. In September, 1976, W.S. developed two vertical scratches on the left upper abdomen while attempting to scale a wire fence, thereafter developing a Koebner reaction with psoriasis lesions developing along the lengths of the scratches. This was treated cryosurgically and as shown in figure 1, taken two months post treatment there is neither exacerbation nor recurrences of the Koebner lesions. Note also in figure 1. the good quality of post-cryosurgical healing with minimal resolving erythema and minimal scar formation, but with some hypopigmentation.



Discussion

The apparent advantage of cryosurgery in this case of nummular psoriasis was the lack of recurrence following one to two cryosurgical treatments, with most lesions requiring but one treatment and the absence of Koebnerization of cryosurgically treated areas. In fact cryosurgery was used in this case to treat a Koebner reaction involving psoriasis, but larger trials will show if this holds true for all cases.

Ishikawa and Sato in 1974[1] utilizing immunofluorescent staining of B-lipoproteins revealed deposition of this substance in the intercellular spaces of the epidermis, around or on blood vessels and in all layers of the corium of seventeen active psoriatic lesions and remarkable disappearance of the B-lipoprotein in improved and uninvolved skin of psoriatic skin. To further substantiate this lipid metabolism problem in psoriatics, Brenner et al. 1975[2] found lower total cholesterol and reduced concentrations of linoleic acid, one of the essential fatty acids, and increases in palmitoleic and stearic acids, hypothesizing intestinal malabsorption or selective loss via the scales. To possibly explain the non-recurrence of treated lesions in this case, removal of major quantities of this abnormal B-lipoprotein deposit in the epidermis by means of cryocautery may be the reason for the non-recurrences. However, the reason for these promising results remains to be definitively elucidated by further study.

Robert Fand, M.D.

Danbury, CT

INFLUENZA EPIDEMIC

To the Editor: Dr. Gert Wallach's review of the 1918-1919 Waterbury Influenza statistics, in the June *Connecticut Medicine,* is very enlightening. He observes that the elderly and chronically ill were relatively unscathed. Less than 1% of the dead were over 60 years, while 97% of the fatalities occurred in the under 49-year-old group.

In his very interesting monograph, Dr. Wallach does not speculate on the reasons for the senior citizen immunity. But he recommends changes in policies and priorities to immunize younger age groups first. I agree with his recommendations because I suspect, that in 1918, the elderly already had antibodies from previous infection. And that is the reason they did not succumb.

If swine flu had occurred in 1976, and it was caused by the same infecting agent as 1918, I believe that persons over 58 years would have been immune. Because they had lived through the 1918 pandemic, they would still have antibodies, or the capacity to produce them rapidly, to ward off the worst effects of the illness.

John P. Callan, M.D.
Editor-in-Chief, GOOD HEALTH

Hartford, CT

Aerosol Containers Regulation

The Food and Drug Administration (FDA) and the Consumer Product Safety Commission (CPSC) announced plans to ensure that products in aerosol containers using chlorofluorocarbon gases as the propellant carry this label: "Warning: Contains a chlorofluorocarbon that may harm the public health and environment by reducing ozone in the upper atmosphere."

FDA is issuing a final regulation to require that this warning label appear on all food, drug, and cosmetic containers propelled with chlorofluorocarbons initially shipped in interstate commerce after October 31, 1977.

FROM THE EXECUTIVE DIRECTOR'S OFFICE

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Executive Director
Josephine P. Lindquist
Associate Executive Director

Robert J. Brunell
Assistant Executive Director
Scientific Activities

Summary of Actions
Council Meeting

Wednesday, August 3, 1977

I. Attendance

Present in addition to the Chairman, Dr. D.A. Grendon, and the Vice Chairman, Dr. G.W. Van Syckle, were: Drs. Friedberg, Freedman, Kamens, Backhus, Spitz, Hess, Bradley, Cramer, Fabro, McGarry, Sadowski, Harkins, James, Sonnen, Whalen, Jameson, R. Beck, Anderson, Magram, Eslami, Parrella, Zlotsky and Middleton.

Also present were: Mrs. Lindquist, Mrs. Arafeh (Auxiliary), Mr. Brunell, Mr. Sweeney and Dr. Richards.

Absent were: Drs. Johnson, Ragland, Jr., Canzonetti, Mendillo, Krinsky, E. Beck, Horrax and Barrett.

II. Routine Business

Approval of Minutes

As published and distributed, it was VOTED to approve the minutes of the meeting of July 7, 1977.

Life Membership

It was VOTED to approve an application for Life Membership received from the following eligible Active Member:

Henry Krockmal, Meriden

Date of Next Meeting

The Chairman set the date of the next Council meeting for Thursday, September 8, 1977.

III. Old, New and Special Business

Follow-up on 7/7/77 Actions re Ambulatory Care Study Report

It was VOTED to receive as information a progress report of the ad hoc committee appointed by the President to prepare and submit for Council approval a "commentary" on the Final Report of CACS. In brief, Dr. Friedberg stated that some headway had been made at a committee meeting held on 8/1/77; that a second meeting has been scheduled for 8/29/77; and that it is anticipated that the draft of an appropriate commentary will be ready for Council consideration on 9/8/77.

It was further VOTED to approve two recommendations made by the ad hoc committee as follows:

(a) That CACS Staff and Principal Investigator be instructed *not* to transmit the Final Report to HEW at this time, as they had suggested be done.

(b) That CACS Staff and Principal Investigator be advised that the Final Report will be transmitted to HEW by the Society from its headquarters office (not by CACS) at such time as the Council determines to be indicated.

It was further VOTED to remove from the table (tabled 7/7/77) the minutes of a 6/6/77 meeting of the Committee on Statewide Medical Planning which incorporated a series of recommendations and motions concerning the Ambulatory Care Study. After lengthy discussion of three statements re publication of other papers based on CACS data, advocated for Council approval by the CACS Advisory Committee, and several lost motions concerning same, it was further VOTED to table action on the entire subject minutes until the Council has completed definitive action on the CACS Final Report itself (including the Council's "comments" thereon).

Report of Committee on Peer Review Systems re Medicare Assignment Rate

It was VOTED to receive as information a statement submitted by the Committee which reported on its study of why the acceptance by physicians of Medicare B benefits by assignment in Connecticut was 40% of claims in 1976, while in other New England states the acceptance rates were much higher (averaging 67.4%). In brief, the statement documented a number of significant differences in the claims processing and payment mechanisms in Connecticut and those in the other N.E. states which, in themselves, might serve as deterrents to acceptance of assignment here; reported on a number of other factors that appear to be sources of confusion and dissatisfaction to physicians and Medicare patients alike; and concluded with a series of recommendations which, if fully implemented by the appropriate parties concerned, might improve the level of acceptance of benefits by assignment in our state.

The Council further VOTED to approve the statement as official for the Society, with commendation to the Committee and Staff for its excellence. As to distribution, publicity, etc., it was VOTED to:

(a) Approve distribution of the statement to the secretaries of the component County Medical Associations for their information and guidance.

(b) Approve distribution of the statement to Connecticut's six U.S. Representatives and two U.S. Senators, for their information and comment, with an invitation to meet with them to discuss the statement if they so desire. If CSMS representatives are asked to meet with individual Representatives or Senators, appropriate County Association representatives are to be invited to participate in such meetings. CSMS representative to participate in any such discussions to be chosen by Chairman.

(c) To approve distribution of copies of the statement to the following: All major media; the Governor; the co-chairmen of the General Assembly's Committee on Public Health and Safety; the majority and minority leaders of the Assembly's senate and house; the Commissioner on Aging; participants in the 1/14/77 public forum in Hartford (State Capitol) called by Rep. Moffett (6th Dist.-CT).

Acknowledgements—1977 CSMS Medical Student Financial Aid Fund Grants

It was VOTED to receive as information acknowledgements received from the officials of the Yale and UConn Medical Schools, expressing thanks for the 1977 CSMS grants to their respective Financial Aid Funds and re-emphasizing the importance of such funds to medical students.

Follow-Up Report on Reprinting 1971 Connecticut Relative Value Guide

On 7/7/77, the Council voted to table action on a motion "not to reprint the 1971 CRVG at this time", pending advice of legal counsel. Legal counsel has informed the Executive Director that, in its opinion, it would be "highly inadvisable" to reprint or revise the subject RVG at present or in the near future. It was VOTED not to reprint the CRVG and to discontinue any further distribution.

Reports of the President

It was VOTED to receive as information a series of reports presented by Isadore H. Friedberg, President. Unless specifically noted, no other actions were taken. The reports follow:

(a) *Nominations, Commission on Hospitals and Health Care:* As authorized by the Council (7/7/77), the President announced his selection of subject nominees to be submitted to the Governor for the appointment of one to Commission membership. The nominees are: David A. Grendon, Sharon; Orvan W. Hess, New Haven; James W. Tierney, Milford; James M. Grant, Bridgeport.

(b) *Meeting with Chief Medical Examiner:* The President announced that arrangements are being finalized for a meeting of CSMS and County Association representatives with Elliot M. Gross, Chief Medical Examiner, to discuss problems related to the pronouncement of death and the signing of death certificates by physicians other than the patient's own attending physician. This matter had been brought to the Council's attention by the Hartford County Medical Association. The arrangements, as finalized, are: Place - CSMS Building; Date - Thursday, 9/8/77; Time - 11:00 A.M.

(c) *Recruitment of Medical Students, Interns and Residents:* The President announced that he had requested Edward A. Kamens, Fairfield, CSMS Vice President, to assume responsibility for recruiting the participation of medical students, interns and residents in Connecticut in the activities of CSMS and the AMA.

(d) *Funding of CSMS-NHCMA Defense Against FTC Complaint:* The President reported on his discussion with AMA officials concerning the possibility of the AMA sharing the legal costs of the CSMS-NHCMA defense at the forthcoming hearing on the FTC complaint. In brief, he reported that the AMA response was again in the negative.

(e) *Reports on Cost-of-Care Seminars:* The first seminar on the "Role of the Staff Physician in Helping to Control the Cost of Hospital Care Services" was held at the Ramada Inn, North Haven, Connecticut, on July 19, 1977. Invitations to this seminar were mailed to Chiefs of Staffs and Administrators of General Hospitals, Directors of Area PSROs, CSMS Committee on Hospitals and the Council. Approximately 40 persons attended the seminar. 18 hospitals were represented and there was poor attendance of Council members. It was felt to be a worthwhile seminar and all general hospitals will be contacted urging the Hospital Administrator to set up staff committees to study the role the physicians can play in controlling escalating hospital costs.

The second seminar on "The Utilization of Hospital Pharmaceutical Services by Members of the Medical Staff" will be held on August 17, 1977, at the Ramada Inn, North Haven, Connecticut, commencing at 1:30 P.M. Approximately 500 invitations have been mailed for this seminar.

(f) *Position on Laetrile:* The President announced that he expected to make a general statement on Laetrile at a mid-August legislative hearing being held under the auspices of the General Assembly and requested Council guidance as to the nature of such statement. The Council VOTED to endorse the statement on Laetrile adopted by the AMA House of Delegates in June, 1977, and to empower Dr. Friedberg to present that statement as the official subject position of the Society at the forthcoming legislative hearing.

Notice of Honors and Awards

(a) *Norman A. Zlotsky, Rockville:* It was VOTED to receive as information a letter from the Executive Director of the Connecticut Interscholastic Athletic Conference, Inc., which notified the Council that the CIAC Board of Control recently voted "to commend highly Dr. Norman A. Zlotsky . . . . for his valuable services to CIAC during the 1976-77 school year," observing also that "recent changes in rules, policies and attitudes bettering protection of the health and safety of competitors (both boys and girls) . . . . have largely been the result of Dr. Zlotsky's efforts." It was further VOTED to congratulate Dr. Zlotsky on his receiving this honor and to give the commendation appropriate publicity. Dr. Zlotsky is chairman of the Committee on the Medical Aspects of Sports, editor of *Connecticut Sportsmed,* and serves as consultant to the CIAC.

(b) *Award to the Journal:* The Council VOTED to take official cognizance of an award made to the Journal (on 5/25/77) by the New York Chapter of the American Medical Writers Association. Accepted by J. Alfred Fabro, Journal Editor, the Association's Hammond Award, "in recognition of outstanding achievement" was presented to *Connecticut Medicine* "for excellence in medical journalism." It was further VOTED to congratulate the Editor on this honor paid to the Journal and to give the award appropriate publicity in the media. Notice of the award has been published in the July issue of the Journal, Page 443.

Reports on AMA Meeting-San Francisco, 6/19-23/77

It was VOTED to receive four published subject reports as follows: (1) A "Capsule Report" on some thirty actions of the House of Delegates, prepared by CSMS Staff; (2) A report submitted by J. Alfred Fabro, AMA Delegate, which dealt principally with resolutions introduced by the Connecticut Delegation; (3) A report submitted by E. Tremain Bradley, AMA Delegate, which dealt mainly with the debate that took place on the proposal to have a full-time, salaried president of the AMA, who would serve as an ongoing spokesman for the Association (the proposal will be given further study by the Board of Trustees); (4) A report submitted by Orvan W. Hess, AMA Delegate, that presented a general view of the meeting with some specific comments regarding fiscal matters. Also received as information was the "Summary of Actions" published and distributed by the office of the AMA Executive Vice President. In addition, received without vote were a series of verbal reports presented by various members of the Connecticut AMA Delegation which served to supplement the published reports.

N.B.: *The foregoing is a summary of the proceedings and actions of the Council on August 3, 1977. Detailed minutes of the meetings are on file at 160 St. Ronan Street, New Haven, for perusal by any interested member of the Society.*

Mark Your Calendar Today!

SEMI-ANNUAL MEETING OF THE HOUSE OF DELEGATES

Thursday, November 17, 1977 **Sheraton-Park Plaza Hotel** **New Haven, CT**

OBITUARIES

WILLIAM L. WEST, M.D.
1925 - 1977

The untimely death of Dr. William West on June 15, 1977 has saddened many people in various parts of medicine and in various walks of life. He served so well in so many different endeavors that his passing away will be deeply felt in wide spread areas. I knew Bill as a compassionate and excellent obstetrician, not only in practice in the Naugatuck Valley but prior to that while doing part of his residency at Yale-New Haven Hospital.

It was my knowledge of his thoroughness in organizational ability that led to persuading him to assume the post of executive secretary of the New Haven County Medical Association. The many, many people who came in contact with him there know of his unfailing ability to "get the job done". His professional accomplishments include being a board obstetrician and captain in the army medical corps during the Korean war.

Dr. West graduated from Shelton High School in 1942, later from the University of Vermont Medical School, served his internship at Yale-New Haven Hospital and Rhode Island Lying-in Hospital and his residency at Strong Memorial Hospital, Rochester, New York. He was a staff member at Griffin Hospital and past president and secretary of the medical staff at Griffin and past president of the Naugatuck Valley Medical Society.

His community interests are also certainly more than perfunctory, being on the advisory board of the Salvation Army and the Homemakers of the Valley. He was a member of the New Haven County Medical Association, Connecticut State Medical Society, American Association of Medical Society Executives, American Medical Association, New Haven Obstetrical Society, American College of Obstetricians and Gynecologists, Valley Chamber of Commerce, Hunington PTA and the Huntington-Derby and Vermont Historical Society.

His wife, Gloria Frey West and their three children are respectfully extended the condolences of his many, many colleagues that he has worked with, known and helped for these many years.

Stewart J. Petrie, M.D.

EDITH B. JACKSON, M.D.
1895 - 1977

Dr. Edith B. Jackson, Clinical Professor Emeritus of pediatrics and psychiatry at Yale University School of Medicine and a former resident of Woodbridge, Connecticut, died in Denver, Colorado on June 5, 1977.

She was born in Colorado Springs, and graduated from Vassar College in 1916 and Johns Hopkins Medical School in 1921. Following additional training at the University of Iowa and at Bellevue Hospital, Dr. Jackson came to the Yale Department of pediatrics in 1924, joining Drs'. Edwards Park, Grover Powers and Martha Eliot in a study of rickets in New Haven children.

In 1930 Dr. Jackson went to Vienna for further postgraduate training. She was one of the first American physicians to study psychoanalysis under Sigmund Freud. She returned to Yale in 1936 receiving a joint appointment in pediatrics and psychiatry. From 1936 to 1941 Dr. Jackson directed the psychiatric consultation service for children. Her attention was drawn, however, to the lying in service in the hospital. She was convinced that this moment in the life history of a family offered a great opportunity to help mothers assume their new responsibilities of parenthood. She and Dr. Herbert Miller, Director of the Newborn Service supervised house officers assigned to the nursery. In 1938 she instituted an intern's home visit plan for mothers and infants shortly after discharge from the hospital.

In 1946 Dr. Jackson withdrew from her ward responsibilities to concentrate on the lying in service. With her unfailing insistence and the support of Grover Powers, Chairman of the Department of Pediatrics, she developed an experimental Rooming-In unit at Yale New Haven Hospital where mothers and fathers could care for and enjoy their babies uninterrupted by rigid rules and regulations. The Rooming-In Unit at Yale New Haven Hospital became a model for lying in services throughout the world. . . She retired from Yale in 1959.

Medical and nursing students, house officers, and colleagues, as well as parents and babies benefitted greatly by Edith Jackson's consistent conviction that every effort must be made to assure a mother's and baby's comfort in the early days of a family's existence. In 1964 she was the first recipient of the Agnes McGavin Award of the American Psychiatric Association for contributions to preventive psychiatry and in 1968 she received the C. Anderson Aldrich Award of the American Academy of Pediatrics. She served for many years as a Board Member of the Family Service Society in New Haven, and of the International Social Service, American Branch in New York. She was a founding member of the Western New England Psychoanalytic Society.

Dr. Edith Jackson's personal and professional life reflected a continuous dedication to the welfare of parents and children. She maintained consistently an "attentive readiness to help". Her quiet unobtrusive manner of teaching human development and behavior was so skillfull that colleagues were often unaware of the learning process as it took place.

The challenge to meet the needs of children will always be present. Dr. Edith Jackson serves as a model for all of us who care for children. We are challenged to do our best to carry on in the manner she so ably demonstrated for more than fifty years.

Morris A. Wessel, M.D.

In Memoriam

Craighill, Margaret D., Johns Hopkins Medical School, 1924. Dr. Craighill practiced medicine and psychiatry in the Fairfield and New Haven County prior to her marriage to Admiral Wotherspoon. The first woman to be commissioned in any branch of the Army, she achieved the rank of lieutenant colonel and served in the capacity of consultant to the Army Surgeon General. She was a recipient of the Legion of Merit. Dr. Craighill died July 20, 1977, at the age of 78.

Dayton, Neil A., Ohio State Médical School, 1915. Prior to his retirement in 1964, Dr. Dayton had been a practicing psychiatrist in the Avon area since 1941. He served with the Medical Reserve Corps. U.S. Army, from 1917 to 1919. Dr. Dayton died March 5, 1977, in Clearwater, Florida, at the age of 84.

Mann, Warren A., University of Illinois, 1948. Dr. Mann was a practicing psychiatrist in the Fairfield area since 1961. He served as a Captain in the U.S. Army from 1952 to 1954. Dr. Mann died July 24, 1977, at the age of 52.

Rich, Joseph N., Long Island College of Medicine, 1934. Dr. Rich was obstetrics and gynecology clinical director at Flushing Hospital, N.Y., prior to his retirement. He was a retired colonel in the U.S. Army Medical Corps, having served in World War II. He was a member of the Litchfield County Medical Association, the Connecticut State Medical Society and the American Medical Association. Dr. Rich died June 6, 1977, at the age of 70.

NOTICES

Symposium on Clinical Toxicology

UConn Health Center
October 19, 1977
Farmington, CT

A one-day symposium on clinical toxicology will be held at The University of Connecticut Health Center on Wednesday, October 19, 1977. The program will run from 8:30 a.m. to 4:30 p.m. and will include presentations by clinical toxicologists and pharmacists from the Connecticut Poison Information Center. The registration fee is $25.

Further information may be obtained from Alex Cardoni, M.S., Director, Connecticut Poison Information Center, Farmington, CT, Telephone: (203) 674-2782.

PHYSICIAN PLACEMENT SERVICE

The Society maintains the Physician Placement Service as a service to the medical profession in the State of Connecticut. Opportunities for physicians to locate in Connecticut will be published as space permits and will be distributed to physicians making inquiry of such opportunities. Information should be sent to 160 St. Ronan Street, New Haven, Connecticut 06511, (203-865-6822).

Physicians wishing to establish practice in Connecticut are invited to submit a resume to be kept on file with the Society. An announcement of a physician's availability will be published in two consecutive issues of *Connecticut Medicine*.

OPPORTUNITIES FOR PRACTICE

(If no name is listed, contact the Physician Placement Service for more details.)

Anesthesiology: Board eligible or certified. Private group. Southwestern Connecticut. Inquiries confidential. Send complete resume to CSMS.

Family Medicine or Internal Medicine: Position available now for Medicaid long-term patient review. Norwich area. Part-time (15 hrs. per week) on a contract basis. Fee negotiable with use of state car or 15¢ mileage. Interested physicians contact Mr. Harold McIntosh, Assistant Director at 566-2928 or 566-3435.

Family Medicine or Internal Medicine: (Primary Care) Manchester, CT, with 50,000 population needs physicians. Beautiful place to live and congenial medical community ready to help newcomers. Excellent coverage system functioning in addition to full time emergency department physicians in the 300 bed community hospital. Contact: Manchester Medical Association, Manchester Memorial Hospital, Manchester, CT. 06040.

Internal Medicine: With experience in alcohol detoxification as part-time Medical Director of private Alcohol Rehabilitation facility. Salary $20,000 to $24,000 depending upon qualifications. Contact CSMS.

Internal Medicine: Excellent Opportunity. Solo practice for sale. Established and active since 1946. 6-figure gross. Close to University Hospital. Desire certified Internist. Send replies to CSMS.

Ob/Gyn: Board certified or eligible to work with established practitioner in a 13 man multi-specialty corporation. County practice in relaxed atmosphere with all facilities in northwest CT. 2 year salary followed by full membership status. Contact CSMS.

Pediatrics: Board certified, eligible wanted for northern Fairfield county town with large and growing school population. Office 10 minutes from Yale affiliated Hospital. Position immediately available. Call 203-746-3300.

Psychiatrist: Opportunity for private practice through sharing expenses in suite of new offices; available part or full time; 17 years of service in same area; write Dr. Jack I. Esterson or Dr. William R. Poe, Associated Psychological Services, 465 Silas Deane Highway, Wethersfield, CT 06109, or call 529-7006.

Physician needed as full-time Medical Director for Connecticut's Medicaid Program. Work with Medical and Patient Review Teams and program auditors. Starting salary $25,500. Contact Stephen Press, Director, Medical Care Administration, Department of Social Services, 110 Bartholomew Avenue, Hartford, CT 06115.

PHYSICIANS WISHING TO LOCATE IN CONNECTICUT

FAMILY PRACTICE

Feb. '78. Age 33, Nat'l. bds., elig. M.D. from Temple Univ. Interested in all phases of F.P. Wishes no obstetrics unless with group where all M.D.'s were doing OB. Medium community with good schools, clean environment and close access to a community hospital. Alan W. Johnson, M.D., 3521 Union St., Allentown, PA 18104.

Available now. Age 45. Conn. license. Looking to buy home/office combination with currently active high volume GP. Purchase of separate office of retiring M.D. considered. Contact CSMS.

Sept. '77. Age 32. Cert. with Nat'l Bds. wishes grp. or assoc. practice. Presently in practice. M.D. Jefferson Med. College., Res. Univ. of Calif.-Sacramento, Med. Ctr. David M. Spiegelman, 5520 E. Bloomfield Rd., Scottsdale, AZ 85254.

INTERNAL MEDICINE

Oct. '77. Age 29. Conn. license. FLEX. Elig. M.D. from Baylor College. Int. and res. from Montefiore Hosp., Bronx. Presently on faculty at Yale Sch. of Med. Grp., assoc. or instit. practice in large or med. community. Steven P. Baughn, M.D., 537 Whitney Ave., New Haven, CT 06511.

Nephrology: Available now. Age 41. Conn. license. Passed ECFMG and FLEX. Elig. Int. from India and St. Mary's Hosp., Michigan. Res. and fellowship India. Nephrology, Michigan and Medical Coll. of VA. Grp., assoc. or instit. practice. Presently in practice. Adarsh Luthra, M.D., Uncas-on-Thames Hospital, Norwich, CT 06360.

Hematology: Jan. '78. Age 32. Nat'l. bds., cert. M.D. from Harvard. Int. and res. from Univ. of Minnesota Hosp. Presently doing fellowship at Minnesota. Grp. or academically affiliated practice in med. community. Bruce T. Lyman, M.D., 1253 W. Como Blvd., St. Paul, MN 55103.

Part-time. Available now. Age 33. Conn. license. Nat'l. bds., cert. M.D. from Univ. of Michigan. Int. and res., Beth Israel Med. Center, NY. Presently in practice in CT. Contact CSMS-IM-CRR.

Rheumatology. Dec. '77. Age 33. Cert. M.D. from Univ. of NC. Int. at Yale. Res. and fellowship at Duke. Grp. practice in large or medium community. Prefers exclusive rheumatology practice. Will consider multi-specialty group with predominant rheumatology plus some general IM. William T. Rowe, M.D., 2409 Sparwood Dr., Durham, NC 27705.

Oct. '77. Age 30. ABIM, desires locum tenens for one month or longer. M.D. Univ. of Calif. Alan Kneitel, M.D., 3978 Sacramento, San Francisco, CA 94118.

Oncology. Oct. '77. Age 33. Conn. license. Bd. Elig with Nat'l. Bds. Part-time or full-time position. M.D. Univ. of Pa., Int. Greenwich Hospital, res. Greenwich and St. Raphael's Hosp., CT. Contact CSMS.

Diabetes. Aug. '77. Age 30. Bd. Elig. in Endocrinology. Would like to assume role for teaching Diabetes and Metabolism and/or IM in either Univ. or community hosp. program. Will consider industry or private practice, assoc. in subspecialty-oriented setting. Sandra Beth Raff, M.D., 305 West End Ave., Apt. 11B, New York, NY 10023.

NEUROLOGY

Available now. Age 35. FLEX. Elig., M.D., Int. and res. in India., Fellowship Metropolitan Hosp. NY. Wishes grp., assoc. or instit. practice in med. community. Sadasivam Modali, M.D., 51-55 Vankleeck St. Apt. 3J, Elmhurst, NY 11373.

NEUROSURGERY

Sept. '77. Age 36. All training from India and Czechoslovakia. Seeking position in state or community hosp. Rajendra M. Trivedi, M.D., 6 Rock Glen Rd., Medford, MA 02155.

PATHOLOGY

Dec. '77. Age 30. Conn. license. FLEX. Elig. MD from Univ. of Bombay. Res. at St. Vincent's Hosp. Bridgeport, CT. Group practice preferred. Gopalkrishna M. Trived, M.D., 132 Hunting St., Apt. B-19. Bridgeport, CT 06606.

Jan. '78. Age 33. FLEX. Elig. 11/77. Int. from Ceylon. Res. Coney Island Hosp. and Methodist Hosp., Brooklyn, NY. Presently doing res. program from Bridgeport Hosp. Grp., assoc., instit. or indust. practice in large or med. community. Inpamani S. Arul, M.D., 766 Shepard Ave., Hamden, CT 06514.

Jan. '78.. Age 45. FLEX. Elig 12/77. M.D., int. and res. from Korea. Int. and res. Memorial Hosp., Rhode Island. Grp. or instit. practice in med. or sm. community. Won P. Chung, M.D., Memorial Hosp. Dept. of Pathology, Pawtucket, RI 02860.

PEDIATRICS

Sept. '77. Age 30. Elig. (1st Half passed) Nat'l. Bds. M.D., int. and res. Univ. of Conn. Thomas H. Gorin, M.D., Mountail Rd., R.F.D. #2, Alfred, ME 04002.

Available now. Age 32. Conn. license. Elig., Nat'l. Bds. M.D. Univ. of Conn., Res. Montefiore Hosp., NY. Presently doing fellowship program at Yale. Interested in part or full-time position primarily for the period 7/77-6/78, with possibility of a longer-term commitment. Stewart L. Wolff, M.D., 190 Foxon Rd., East Haven, CT 06513.

SURGERY

Early '78. Age 37. Nat'l. bds., elig. M.D. from Univ. of Buffalo. Int. and res. Maricopa County Gen. Hosp., Ariz. Res. from Nassau County Med. Center, NY. Grp. or assoc. practice in med. community. Arnold S. Fabricant, M.D., c/o 252 B. Belmar Rd., Cranbury, NJ 08512.

General Surgery-General Practice: Conn. license. Elig. M.D., from McGill. Int. and res. from St. Vincent's, Bridgeport. Presently in practice. Would like to take over active practice within 25 miles of New Haven or Bridgeport. Contact CSMS-GS-PDH.

Vascular: Age 30. Conn. license. Nat'l. bds., elig. M.D. and res. from Univ. of Oklahoma. Int. from Vanderbilt. Presently doing fellowship at Yale. Part-time assisting in surgery—or emergency room physician. Contact CSMS-VS-JMK.

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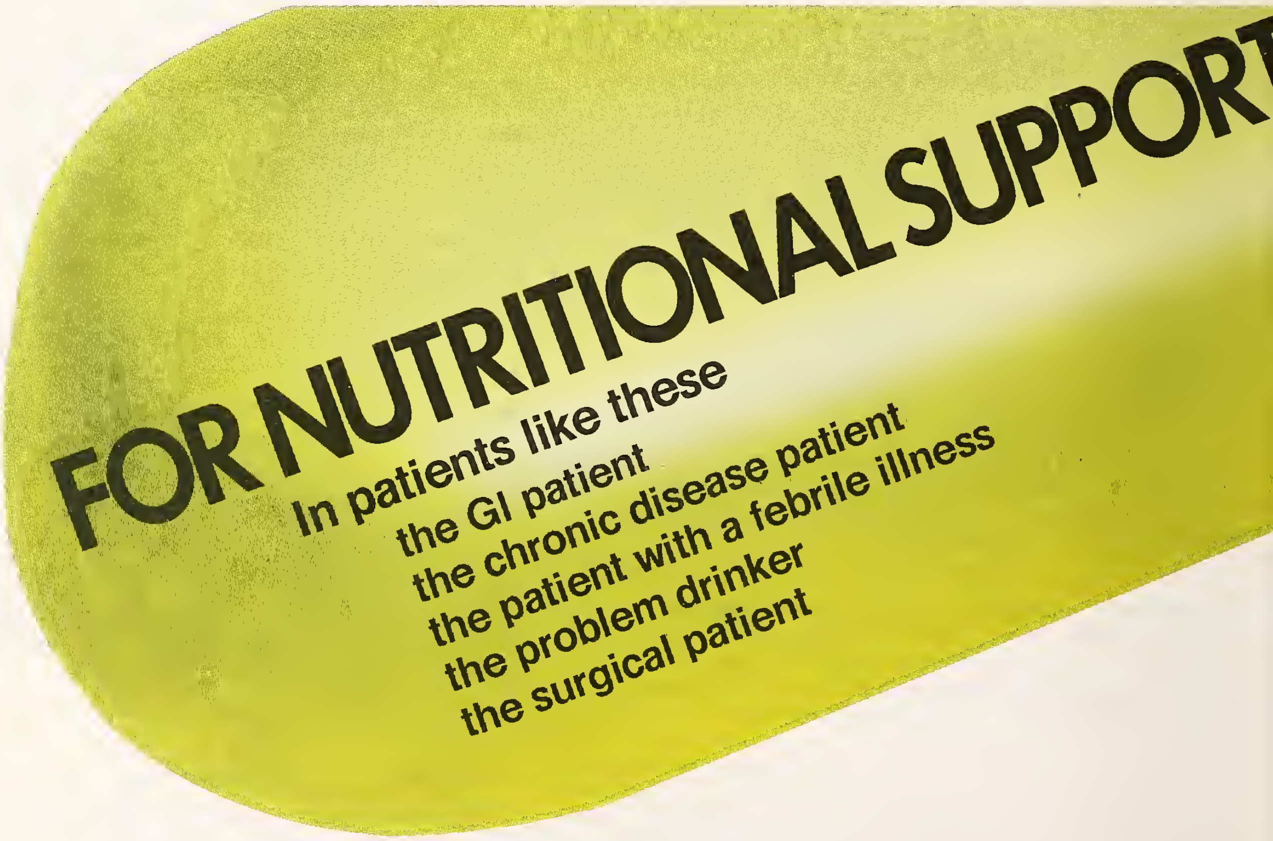

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scientific:

John Ierodiaconou, Massoud A. Marjani, and Edward Dunn 607 Surgical Treatment of Juxta Renal Aortic Occlusive Disease
Frederick Finseth and Thomas J. Krizek 610 Free Flap Transfer in Reconstructive Surgery
Mark K. Adler, Daniel Hamaty, Curtland C. Brown, Jr. and Harriet Potts 614 Evaluation of Rehabilitation Efforts in an Amputee Population
Frank Davidoff and John Gill 618 Myxedema Madness: Psychosis as an Early Manifestation of Hypothyroidism
Cayetano T. Dizon and Paul G. Barash 622 The Value of Monitoring Pulmonary Artery Pressure in Clinical Practice
Bernard V. Strauss 626 When and How to Use a Psychiatric Consultant

special articles:

Judge Howard Alcorn 629 New Britain General Hospital v. The Commission on Hospitals and Health Care
Glenn Affleck and Agnes Thomas 637 The Edelin Decision Revisited
Humanistic Studies in Medicine:
Lisa H. Newton 641 The Healing of the Person
Stephen R. Smith 647 Preceptorships and Medical Education (Second of Two Parts)
Commission on Hospitals and Health Care 651 Guidelines for CT Scanners—Connecticut
J. Kevin Kinsella and Arthur Africano 655 Emergency Care and Evaluation of the Alcohol Patient (First of Two Parts)
AMA Council on Medical Service 663 Guidelines for Physicians Attending Patients in Long-Term Care Facilities

editorials:

John McLean Morris 669 "Unnecessary" Hysterectomy
Daniel Hamaty 670 The Medical Audit and Continuing Medical Education

departments:

Isadore H. Friedberg 667 The President's Page
Robert U. Massey 668 Reflections from the Dean's Office
Letters to the Editor:
Alex Cardoni 671 The Brompton Mixture (Cocktail)
William R. Richards 672 From the Executive Director's Office

general:

665 Month in Washington
676 Physician Placement Service
678 In Memoriam

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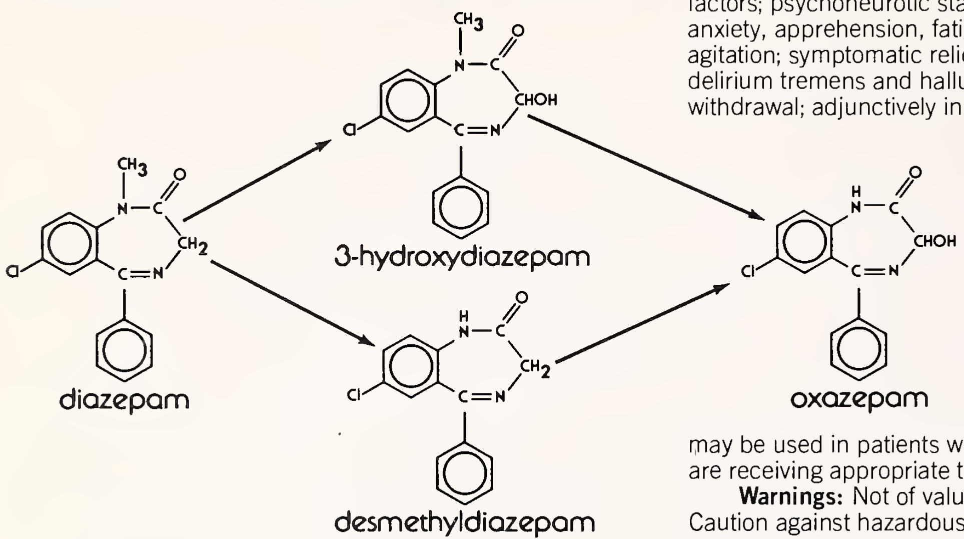
A pharmacokinetic character all its own



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Surgical Treatment of Juxta Renal Aortic Occlusive Disease

Report of Two Cases

JOHN IERODIACONOU, MASSOUD A. MARJANI, M.D.
AND EDWARD DUNN, M.D.

ABSTRACT—Juxta renal aortic occlusive disease is not frequently seen and usually poses a technical problem.

Two cases are presented, both females, with aortic occlusive disease at the level of the renal arteries.

Both patients were operated upon by a combination of thromboendarterectomy and bypass grafting, utilizing infrarenal control with intermittent occlusion of the aorta. Each procedure was carried out by performing thromboendarterectomy, with the aorta and the renal arteries open to avoid renal flow occlusion and to prevent possible renal damage. Neither case was complicated with renal emboli, because of careful dissection and frequent flushing of the aorta after the infrarenal application of vascular clamp.

The postoperative course of the presented patients was unremarkable and they both remain well and free of complications.

The literature has been reviewed for the handling of such cases.

Case A

H.M. (#10-42-34)

This 61-year-old white female housewife was admitted to Waterbury Hospital on March 12, 1974, with the chief complaint of dizziness, weight loss and intermittent claudication in both lower extremities of 3 months duration, with gradual worsening of the claudication combined with coldness in both legs. At the time of the admission, the patient could walk only from the bed to the bathroom without pain. The past history revealed essential hypertension for the past 7 years. On physical examination, no bruit was noted in the lower abdomen. Femoral and popliteal pulses were absent bilaterally. The legs were viable but moderately cold. No trophic changes were noted in the skin of the lower extremities. The rest of the physical examination was unremarkable. X-ray of the lumbar spine was negative. The I.V.P. showed some changes in the renal cortex consistent with a history of pyelonephritis. Translumbar arteriogram revealed complete obstruction of the aorta just below the renal arteries.

Preoperative BUN was 30 mg/dl and creatinine was 1.3 mg/dl. The rest of the laboratory work up was normal.

Treatment

The patient was explored through a midline incision. The aorta was exposed by mobilizing the duodenum and bowel upwards and to the right. Dissection was carried around the aorta, just below the renal arteries and after placing an umbilical tape around the aorta at this level, a noncrushing vascular clamp was placed and left open just below the renal arteries. A vertical arteriotomy incision approximately 2.5 cm in length was made anteriorly, about 3.0 cm below the renal arteries. No blood flow was encountered through the incision. All debris and arteriosclerotic plaques in and above the incision were removed and as soon as blood started rushing out of the aorta, the vascular clamp was clamped below the renal arteries. A more careful thromboendarterectomy was carried out and the vascular clamp was released intermittently to flush out all the necrotic debris, when the thromboendarterectomy was completed. Both femoral arteries were exposed through longitudinal incisions in the groins. The femoral arteries were patent and very small in diameter.

A 14 mm dacron knitted bifurcated graft was used for the bypass by an end to side anastomosis and the operation was completed in the usual fashion. The urinary output, monitored during the operation, was adequate.

Immediately postoperatively, good distal femoral and peripheral pulses were obtained. The postoperative course was complicated by congestive heart failure and atelectasis of the left lower lobe. The patient was treated with digitalization, diuretics, antibiotics and respiratory therapy.

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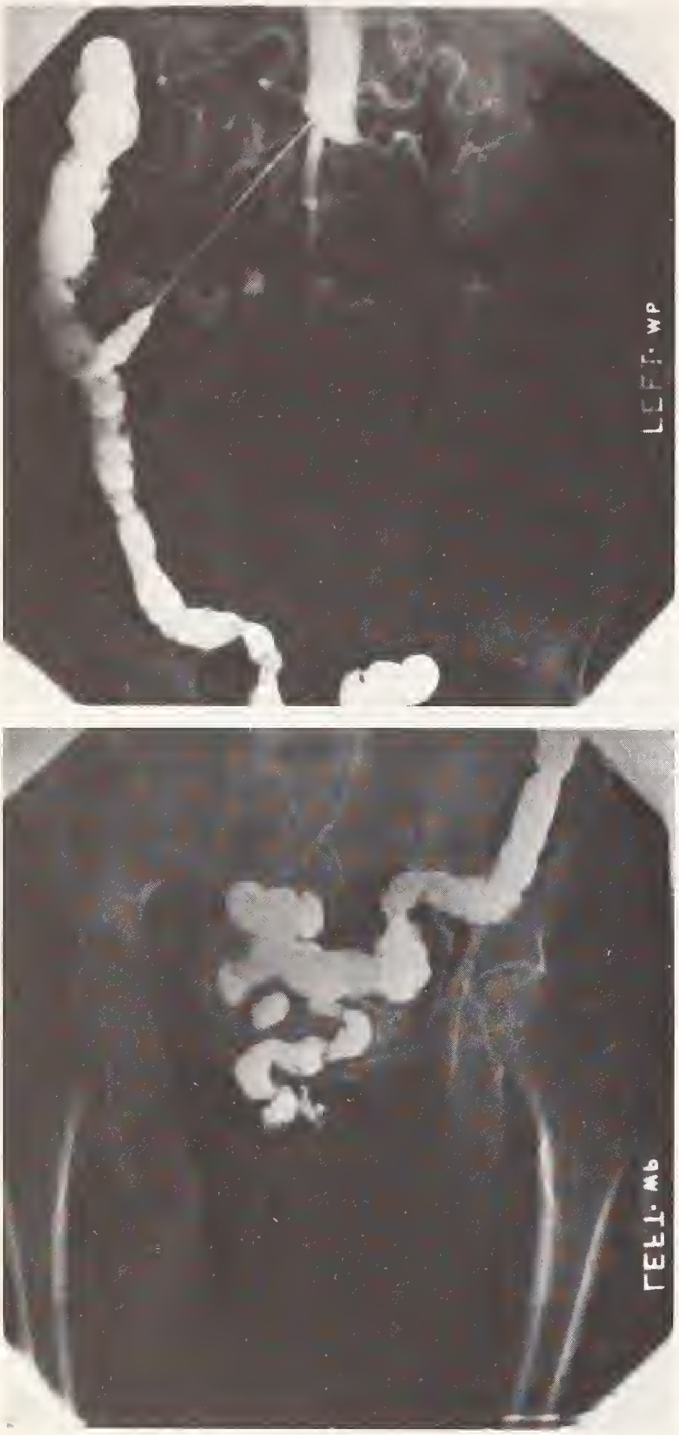
MASSOUD A. MARJANI, M.D., Attending Staff, Waterbury Hospital.

EDWARD DUNN, M.D., Director of Surgical Services, Waterbury Hospital and Associate Clinical Professor of Surgery Yale University School of Medicine.



Aortogram (Translumbar):
Complete occlusion of the aorta at the level of L1 with filling of both renal arteries on the right side but filling of only an upper pole artery on the left side. From the superior mesenteric artery, a large collateralized arch of Riolan anastomoses with the inferior mesenteric artery, which then anastomoses with the left hypogastric artery and contrast medium passes from this to the external iliac artery and then into the femoral and profunda arteries of the left side. On the right side the exact collateral pathway is not demonstrated but faint filling of the right superficial femoral artery was obtained.

Postoperatively, the BUN was slightly elevated to 33 mg/dl and the Creatinine to 2.5 mg/dl but both dropped to normal levels on the fourth postoperative day. Total postoperative hospitalization was 13 days.

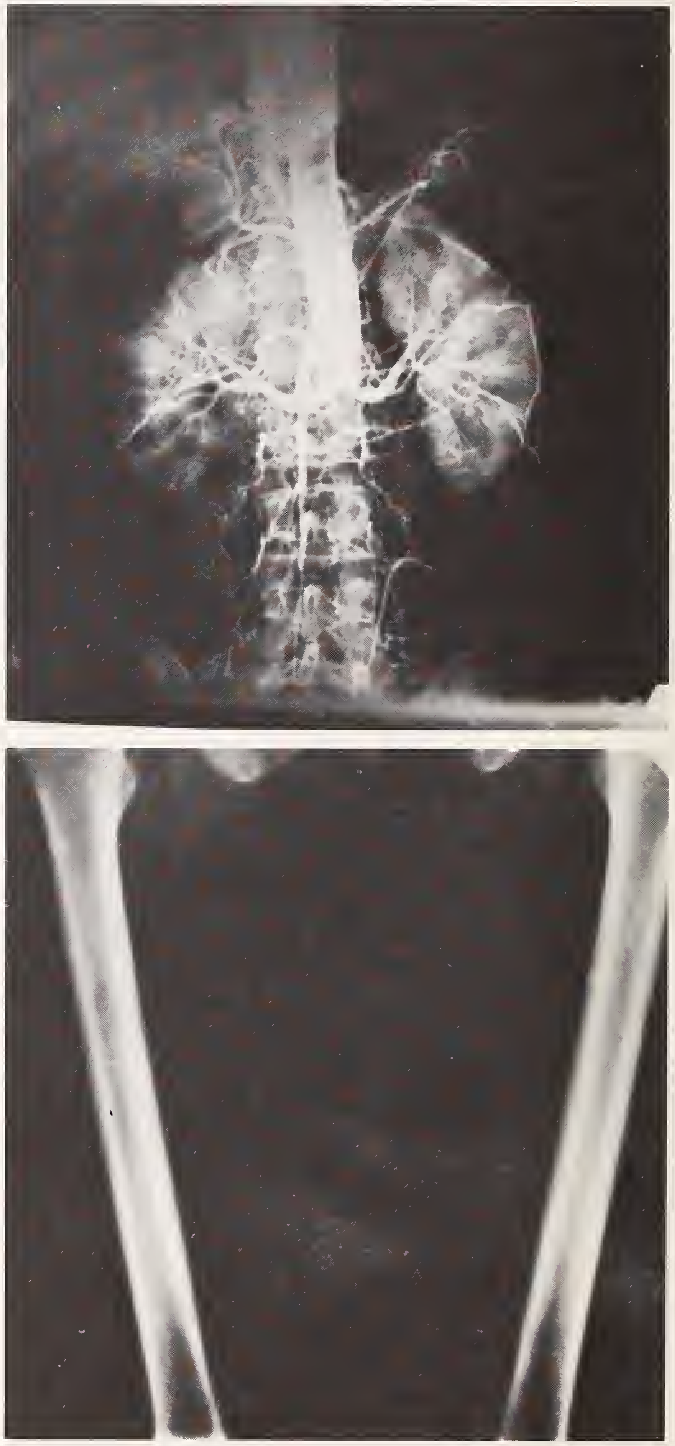
At 24 months post surgery, the patient is doing well and is now symptom free and working in one of the local factories.

Case B

W.T. (#11-10-16)

This 45-year-old white female was admitted to the Waterbury Hospital for angiographic studies because of intermittent claudication and gangrenous changes of the left second toe of 2 months duration. The patient was unable to walk over a block. She denied gluteal or rest pain. At age 20, she was found to be hypertensive and 7 years ago, she was found to have diabetes mellitus.

In addition, the past medical history revealed hypertensive arteriosclerotic heart disease and an old M.I. with secondary pericardial effusion.



Seldinger Technique:
Total block of the abdominal aorta just below the renal arteries. Renal arteries, iliac and inferior mesenteric are patent.
Extensive collaterals via the lumbar, ileolumbar and hypogastric vessels are seen.

On physical examination, BP was 170/120 and pulses 90. The lungs were normal to percussion and auscultation and the cardiac rhythm was regular. There were no murmurs. The abdomen was normal. Both lower extremities were warm. The femoral pulses were absent bilaterally. No bruits were audible over the abdomen or femoral vessels. Femoral, popliteal, and pedal pulses were absent bilaterally. On the left second toe there were some gangrenous changes.

Transaxillary aortogram showed total block of the abdominal aorta just below the renal arteries, extensive collateral with minimal reconstitution of both superficial femorals.

The rest of the diagnostic studies were negative with the BUN, 7.5 mg/dl and the Creatinine, 1.1 mg/dl.

Treatment

The patient was explored through a left paramedian incision. The aorta was exposed by mobilizing the duodenum and bowel upwards and to the right. Dissection was carried around the aorta, just below the renal arteries and after placing an umbilical tape around it at this level, a noncrushing vascular clamp was placed and left open, just below the renal arteries. A vertical arteriotomy incision approximately 2.5 cm in length was made anteriorly, about 3.0 cm below the renal arteries. No blood flow was encountered from the incision. All dibris and arteriosclerotic plaques in and above the incision were removed and as soon as blood started rushing out of the aorta, the vascular clamp was clamped below the renal arteries. A more careful thromboendarterectomy was carried out and the vascular clamp was released intermittently to flush out all the debris, when the thromboendarterectomy was completed. Both femoral arteries were exposed through longitudinal incisions in the groins. The femoral arteries were patent and very small.

A 14 mm dacron knitted bifurcated graft was used for the bypass by an end to side anastomosis and the operation was completed in the usual fashion. The urinary output was monitored during the operation and was adequate. Immediately postoperatively, good distal femoral and peripheral pulses were obtained.

The postoperative course was uncomplicated. The hypertension and leg ulceration were markedly improved. The ulcer on the left second toe gradually healed. Total postoperative hospitalization was 16 days. The patient remains well and free of symptoms at 14 months post surgery.

Discussion

Two cases with juxta renal occlusion of the aorta are presented. Both of these cases are females.

High aortoiliac occlusive disease presents a more difficult and complicated operative problem than the usual Leriche Syndrome. These patients have extensive disease of the distal arteries as well. Careful evaluation of the peripheral arteries is of great importance for the planning of the operative treatment and determination of the level at which the lower anastomoses should be performed. Renal hypertension and impairment of renal function indicate to the surgeon that even minimal renal artery clamping may cause severe renal parenchymal damage which sometimes can be fatal. The renal hypertension and impairment of renal function is not as significant when the occlusion is below the renal arteries. In our first case, there was some cortical loss on the I.V.P. studies, probably due to previous pyelonephritis. The second patient was hypertensive for a long period of time. This hypertension was relieved following the operation.

Angiography is the most important study for the diagnosis and evaluation of the disease. In a patient with a complete aortic block, translumbar or transaxillary routes are the most preferable for the angiographic studies. In our first case, a translumbar technique was utilized. In our second case, a Seldinger technique was utilized through the left axillary artery.

As far as the treatment of these patients are concerned, thromboendarterectomy alone is not feasible because of the extension of the disease. On the other hand, a bifurcation graft alone cannot be used because there is no available length of subrenal aorta for the anastomosis. For these reasons, a combination of both should be utilized.

There have been cases reported by J. Bergan and O. Trippel, where hypothermia was utilized to prevent the renal damage from the occlusion of renal flow during the procedure. In the same report, the aorta was transected below the renal arteries. The aorta proximally was thromboendarterectomized and the clamp was removed from the suprarenal to the infrarenal segment of the aorta. The circulation was restored with a bifurcation graft and end to end anastomosis. Rob modified this technique by transecting first the aorta below the renal arteries, displacing it anterior to the left renal vein and applying the vascular clamp suprarenally. Thromboendarterectomy then was followed by reapplying the clamp infrarenally, replacing the aorta posterior to the renal vein and anastomizing the proximal aorta with the bifurcation graft.

Carlos M. Chavez reported 3 cases with aortoiliac occlusive disease with extension to the renal arteries. The operative techniques used were similar, except for the level of application of the clamp. In his first case, the clamp was applied above the renal arteries, the aorta was thromboendarterectomized through an incision and the clamp was reapplied below the renal arteries. In his second case, the clamp was placed in a similar fashion but the aorta was transected below the renals. In the third case, the clamp was applied below the renals and the thromboendarterectomy was done through an incision up to the level of the clamp.

In a large series of 71 cases by M.M.R. Gomes and P.E. Bernatz, a transection of the aorta below the renal arteries and proximal end to end anastomosis was utilized for 69 cases and side to side anastomosis for the remaining 2 cases. In several of the above cases, the transected aorta was also opened longitudinally, endarterectomized and the vascular clamp was moved below the level of the renal arteries for continuation of the kidney perfusion.

In all cases, the renal arteries were temporarily occluded to prevent any emboli from the debris.

In M.M.R. Gomes' study, atheromatous emboli were found on renal biopsies of six patients.

In both of our cases, thromboendarterectomy was accomplished with the aorta and both renal arteries open. In this way, by avoiding occlusion of the renal flow, we accepted the risk of a renal embolism by atherosclerotic debris, but we minimized the risk of renal function impairment or deterioration from perfusion problems. A very careful dissection, early application of the vascular clamp below the renal arteries, and frequent flushing of the aorta by opening the clamp will minimize embolism. In both of our cases, no such problem was encountered and the results were very satisfactory.

Summary

1. Two patients who presented with occlusion of the abdominal aorta extending to the renal arteries were operated upon by a combination of thromboendarterectomy and bypass grafting utilizing infrarenal control with intermittent occlusion.
2. The literature is reviewed for the handling of such cases and the technique we have used is discussed.

REFERENCES

1. Chavez CM, Conn JH, Fain WR, Gee LH: Surgical treatment of high aortoiliac occlusion. Surgery 65:757-762, May, 1969
2. Faurel L: Lerich Syndrome. Int. Surg 47:291, March, 1967.
3. Cannon JA, Kawakami JG, Barker WF: The present status of aortoiliac endarterectomy for obliterative atherosclerosis. Arch Surg 82:813-825, June, 1961
4. Fogarty TJ, Crahley JJ, Kranse RJ, Strasser E, Hafner CD: Method for extraction of arterial emboli and thrombi. SGO 241-244, February, 1963.
5. Connolly JE, Stemmer EA: Simplified technique of eversion endarterectomy for aortoiliac occlusive disease. Arch. Surg. 105:520-523, September, 1972.
6. Tarnem GR: The lerich syndrome: aortoiliac occlusive disease. J Tenn Med Asso 61:1191-1195, December, 1968.
7. Louw JH, Arrot RS: Localized aortoiliac occlusive disease. S. Afr J Surg 1:131-137, September, 1972
8. Ellis H: Leriche's syndrome aortic thrombosis treated by endarterectomy. Proc. Roy Soc Med 60:1085-1086, November, 1967
9. Plante R, Quenneville G: A prepos de 25 cas de syndrome de leriche operes. Un Med Canada 94:1144-1150, September, 1965
10. Gomez MR, Bernatz PE: Aortoiliac occlusive disease. Arch Surg 101:161, 1970
11. Gomez MR, Bernatz PE, Juergens JL: Aortoiliac surgery: influence of clinical factors on results. Arch Surg 95:387, 1967
12. DeBakey ME, Creech O, Cooley DA: Occlusive disease of aorta and its treatment by resection and homograft replacement. Ann Surg 140:290-310, 1954.
13. Liddle HV, Edmundus MC, Muller WH: Surgical management of arterial obliterative disease: special reference to thromboendarterectomy. Ann Surg 147:845-853, 1958.

Free Flap Transfer in Reconstructive Surgery

FREDERICK FINSETH, M.D. AND THOMAS J. KRIZEK, M.D.

ABSTRACT—The capability for the free transfer of composite flap tissue with the immediate restoration of the circulation by microvascular anastomoses represents a major advance in reconstructive surgery. This paper 1) reviews the background of this revolutionary development in reconstructive surgery, 2) discusses operative microvascular surgery, which is the technical basis for this work, and 3) presents the first two cases of free flap transfer at the Yale-New Haven Hospital.

Free Flap Transfer

Many reconstructive surgical problems require the importation of distant skin flap tissue. For optimal, functional and aesthetic results, skin flap coverage is necessary for the proper surfacing of exposed deep structures or the construction of lost parts. In general skin flaps carry their own blood supply through their base or pedicle to the region where they are inset. It takes two to three weeks for the skin flap in its new location to acquire a new blood supply from the recipient bed. It can then be detached from its base or pedicle. With many reconstructive problems, this results in multiple stages, delays, and operations spanning many months to achieve the transfer of flap tissue from one part of the body to another.

Krizek introduced an extraordinary concept in 1965,

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Presented at the annual meeting of the Connecticut Society of American Board Surgeons, December 8, 1976.

where the free transfer of composite flap tissue was accomplished experimentally with the immediate restoration of the circulation by microvascular anastomoses at the recipient site.[1] For successful clinical application of the concept, two further developments were required. One was the evolution of microvascular surgical technology which occurred during the late 1960s and early 1970s in relation to replantation work in hand surgery.[2,3] The second was the development of the understanding of the vascular anatomy of the skin in man, which would provide an available donor site. It was necessary to obtain a skin flap island receiving its blood supply from a single artery and a single vein. This was the necessary anatomic set-up whereby the skin flap island could be freely transferred with immediate restoration of its circulation by microvascular anastomoses in its new location.

McGregor and Jackson in 1972 described the groin flap as an autonomous vascular cutaneous territory based on the superficial circumflex iliac artery and vein.[4] It was an axial pattern flap or an arterialized flap—a skin flap based on an identifiable arteriovenous axis.[5,6] It was on this clarification of the vascular anatomy of the skin that provided a suitable skin flap island amenable to free transfer. This was first performed in 1973 by Daniel and Taylor and subsequently also by O'Brien.[7,8] Since then large series from several centers about the world have demonstrated the clinical feasibility and in select cases the distinct advantage that free flap transfer has over the classical staged methods of moving flap tissue.[9,13] Other donor sources for free flap transfer other than the groin flap were rapidly exploited. These included the deltopectoral flap, the forehead flap, the dorsalis pedis flap, and the great toe to thumb transfer. The free transfers of nerve, bone, and muscle are currently being explored and are technically and clinically feasible. There is a vast potential for this capability in surgery of the hand, head and neck reconstruction, and lower extremity reconstruction.[14-21]

Microvascular Surgical Technique

The successful end-to-end anastomosis of small blood vessels in the 1 mm diameter range requires magnification through an operating microscope, instruments designed for use under the operating microscope, special suture material, and special microvascular clamps. This surgical skill is acquired through practice in the surgical research laboratory using the rat femoral artery and vein as an experimental model. The instruments are few and simple. I use long-handled, fine-pointed watch forceps, a spring-loaded microdissecting scissors, and a spring-loaded micro-needle holder. The vascular clamps are delicate and barely close, thus just occluding the lumen without damaging the intima. When the vessel ends are set in approximation, the adventitia on each side is stripped back for a certain portion. The forceps are introduced into the vessel lumen and allowed to stretch the size of the vessel to relieve the spasm and enlarge the diameter of the vessel for ease in repair. Interrupted 10/0 nylon sutures are utilized. The suture material is 32 micron in diameter and the needle is 65 micron in diameter. Three overhand knots are applied to each suture, each lying square. Both the artery and the vein are repaired before the clamps are removed. This is to keep blood out of the anastomoses until circulation and flow is established. Low molecular weight dextran is immediately given and is subsequently administered daily for a week. In addition aspirin is given for three weeks. No heparin is used. A patency test is performed on each vessel repaired just distal to the anastomosis to confirm that it is open and carrying blood flow. The cutaneous circulation is checked by capillary blanching and refill, and by active bleeding from the subdermal plexus.

The island groin flap is designed to pattern with attention to the axis and source of the vessels and the

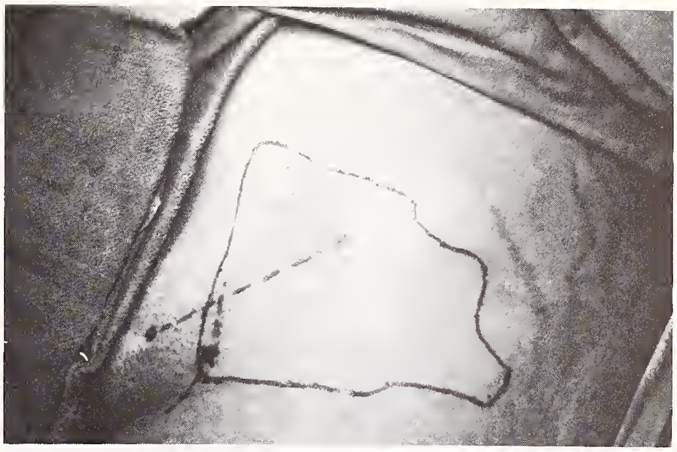

Figure 1a
Design to pattern of a free left groin flap. Case #1. The oblique dotted line represents the left inguinal ligament with the head of the patient toward the top. The vertical dotted line represents the course of the femoral artery, with the cross marking the origin of the superficial circumflex iliac artery that supplies the autonomous vascular cutaneous territory of the free groin flap.

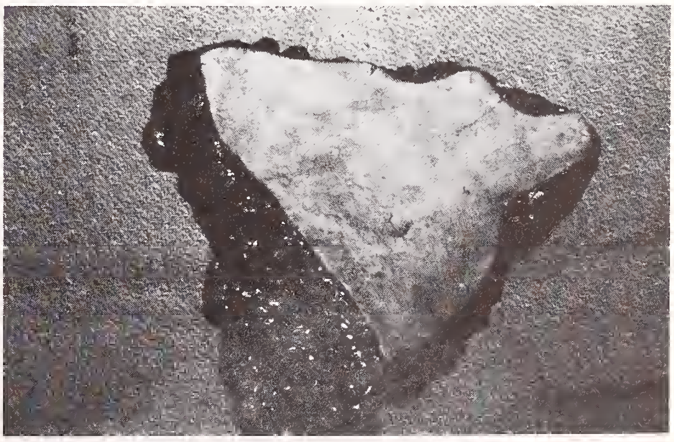

Figure 1b
The detached groin flap being freely transferred to the recipient site on the face where microvascular anastomoses will restore the circulation to the skin flap in its new location.

planned recipient site vessels.[22] The dissection is from lateral to medial going deep to the sartorial fascia to avoid damage to the axial blood vessels. The dissection is complete when the flap is suspended as an island on the superficial circumflex iliac artery and upon the confluence of the superficial circumflex iliac vein and the superficial epigastric vein at the saphenous bulb. It is then ready for free transfer with application of the microvascular clamps.

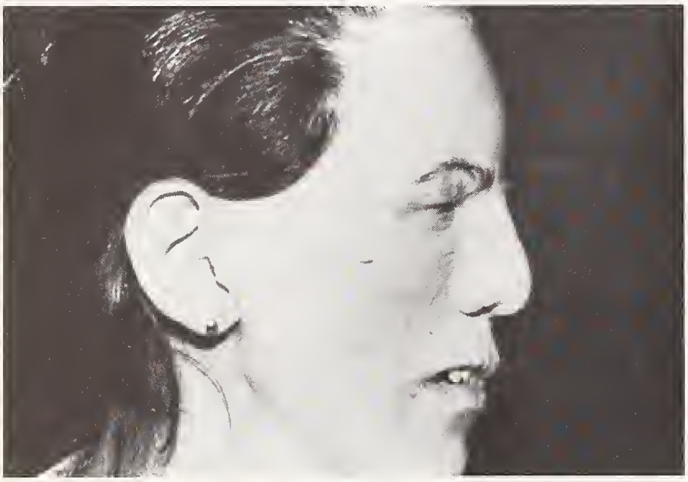

Figure 1c
Preoperative view of Case #1.

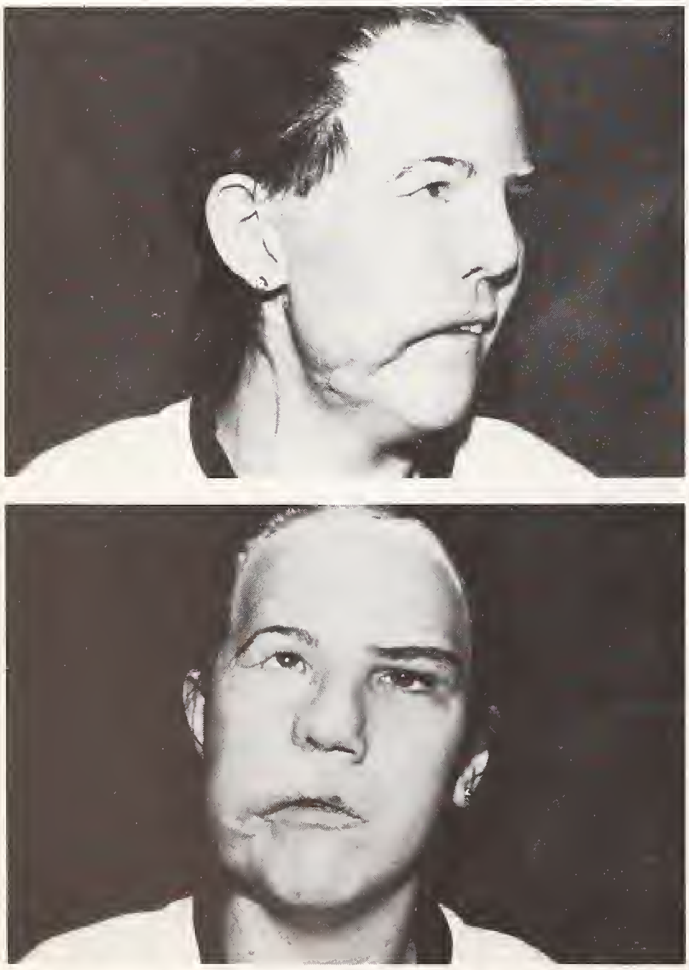

Figure 1d and 1e
Postoperative view of the patient at 6 months. Symmetry, contour and form have been provided to balance the patient's face.

Case Report #1

This is a 26-year-old female who presented with a major facial deformity subsequent to radiation injury for a hemangioma in childhood. There was marked hypoplasia of the soft tissues and skeletal framework of the right side of the face. Multiple complex reconstructive procedures had been carried out. The patient strongly desired to have greater facial symmetry and improved contour to the right side of the face. However, she rejected the use of the deltopectoral flap, as this, in her view, would leave an unacceptable donor site deformity. Similarly, she rejected the trapezial myocutaneous flap. In addition, she did not accept the prospect of importing a tube flap on a wrist carrier, which would have involved months at reconstruction, multiple operations, multiple delay procedures, and a prolonged hospitalization. She was therefore referred for free flap transfer as the preferred method of reconstruction due to its unique expedition, and potential for improving this patient's facial deformity.

A free left groin flap was applied to the entire right side of the face by the methods discussed previously. The facial artery and vein were used for revascularizing the flap. The vascularized flap healed kindly without complication. The donor defect consisted of a linear scar in the left groin within the bikini line.

Subsequent revision is planned to refine the contour and establish finer symmetry. The patient's outlook has brightened with this degree of improvement to her overall deformity by the establishment of better contour of the right side of the face and provision of better facial symmetry.

Case Report #2

This is a 62-year-old woman who had a composite resection of the anterior mandible and right radical neck dissection for a carcinoma some twenty years ago. She has since undergone numerous reconstructive procedures including iliac crest bone grafting for mandible reconstruction and numerous flaps in an effort to fill out the contour of the mandible. Despite these efforts, the patient was simply not satisfied with the situation, as she continued to be markedly short of tissue with an almost absent mandibular profile and a deficiency of oral lining. However, this patient rejected the prolonged hospitalization and multiple procedures involved in transporting a tube pedicle flap on a wrist carrier. Moreover, she was not interested in the use of a trapezial myocutaneous flap nor the deltopectoral flap because of the problems of donor site deformity which would result. Accordingly, she accepted the use of the free flap transfer for reasons of its singular expedition and minimal donor site defect in the groin.

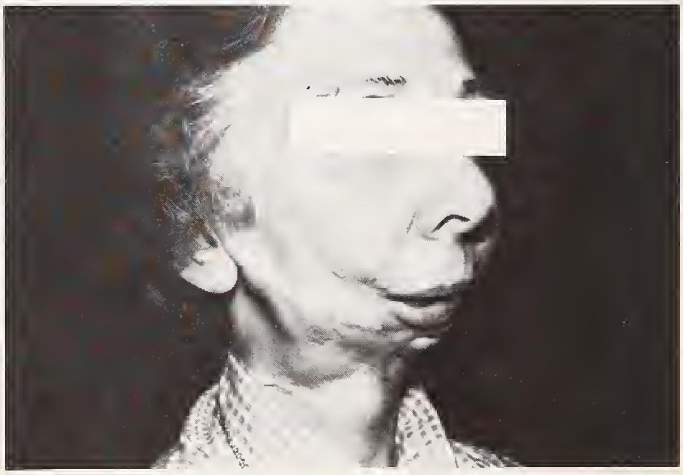

Figure 2a
Preoperative view of Case #2.

A free left groin flap was cut to pattern to cover the anterior jaw and upper neck, and transferred with microvascular anastomoses to the superior thyroid artery and a local branch of the external jugular vein. The recipient site was prepared by taking local tissue as an apron turnover flap and introducing it as oral lining.

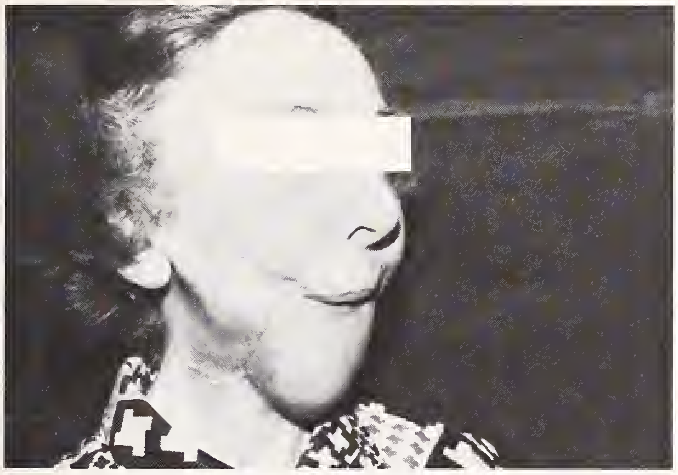

Figure 2b
Postoperative view of patient at six months. The flap tissue provides bulk to enable reconstruction of the mandible and chin contour and form. Further revisional procedures are planned to elevate the flap and refine the contour.

Twelve hours following successful revascularization of the flap, venous thrombosis occurred and the patient was immediately re-explored. The venous thrombosis was confirmed and the anastomosis resected and re-done. This restored adequate circulation. The flap then proceeded to heal without further difficulty and with complete survival. Local revision of the flap is planned to complete the shape and contouring of the flap.

Discussion

The free transfer of a skin flap with immediate restoration of the circulation by microvascular anastomoses represents a quantum leap in the possibilities of reconstructive surgery. It is an established clinical reality. It is the most expeditious reconstruction. For properly selected cases, it is the best reconstruction. It is now possible to freely transfer skin, bone, muscle and nerve to solve complex reconstructive problems. We are now only on the threshold of exploring the application and capabilities of this sort of surgery.

REFERENCES

1. Krizek TJ, et al: Experimental Transplantation of Composite Grafts by Microsurgical Vascular Anastomoses. Plast Reconstr Surg, 36:538-546, 1965
2. Cobbett JR: Microvascular Surgery. Surg Clin N Amer, 47:521-542, 1967
3. O'Brien BM, et al: Clinical Replantation of Digits. Plast Reconstr Surg, 52:490-502, 1973.
4. McGregor IA and Jackson IT: The Groin Flap. Brit J Plast Surg, 25:3- , 1972
5. McGregor IA and Morgan G: Axial and Random Pattern Flaps. Brit J Plast Surg, 26:202-213, 1973
6. Smith PJ, et al: The Anatomical Basis of the Groin Flap. Plast Reconstr Surg, 49:41-47, 1972
7. Daniel RK and Taylor GI: Distant Transfer of an Island Flap by Microvascular Anastomoses. Plast Reconstr Surg, 52:111-116, 1973
8. O'Brien BM, et al: Successful Transfer of a Large Island Flap from the Groin to the Foot by Microvascular Anastomoses. Plast Reconstr Surg, 52:271-278, 1973
9. Baudet J, LeMaire JM and Guimberteau JC: Ten Free Groin Flaps. Plast Reconstr Surg, 57:577-595, 1976
10. Seratin D, Rios AV and Georgiade N: Fourteen Free Groin Flap Transfers. Plast Reconstr Surg, 57:707-715, 1976
11. Harii K, Ohmori K and Ohmori S: Free Deltopectoral Skin Flaps. Brit J Plast Surg, 27:231-239, 1974
12. Harii K, Ohmori K and Ohmori S: Successful Clinical Transfers of Ten Free Flaps by Microvascular Anastomoses. Plast Reconstr Surg, 53:259-270, 1974
13. O'Brien BM, et al: Free Flap Transfers with Microvascular Anastomoses. Brit J Plast Surg, 27:220-230, 1974
14. Daniel RK, Terzis J and Schwarz G: Free Neurovascular Flaps. Plast Reconstr Surg, 56:12-20, 1975
15. Daniel RK, Terzis J and Modgley RD: Restoration of Sensation to the Anesthetic Hand by Free Neurovascular Flap from the Foot. Plast Reconstr Surg, 57:275-280, 1976
16. Harii K, Ohmori K and Torii S: Free Gracilis Muscle Transplantation with Microneurovascular Anastomoses for the Treatment of Facial Paralysis. Plast Reconstr Surg, 57:133-143, 1976
17. Harii K, Ohmori K and Sekiguchi J: Free Musculocutaneous Flap. Plast Reconstr Surg, 57:294-303, 1976
18. Ikuta Y, Kubo T and Tsuge K: Free Muscle Transplantation by Microsurgical Technique to Treat Severe Volkmann's Contracture. Plast Reconstr Surg, 58:407-411, 1976
19. Ostrup LT and Frederickson JM: Reconstruction of Mandibular Defects after Radiation Using a Free, Living Bone Graft Transferred by Microvascular Anastomoses. Plast Reconstr Surg, 55:36-40, 1975
20. Taylor GI and Ham FJ: Free Vascularized Nerve Graft. Plast Reconstr Surg, 57:413-21, 1976
21. Taylor GI, Miller GD and Ham FJ: Free Vascularized Bone Graft. Plast Reconstr Surg. 55:533-544, 1975
22. Taylor GI and Daniel RK: The Anatomy of Several Free Flap Donor Sites. Plast Reconstr Surg, 56:243-253, 1975

Evaluation of Rehabilitation Efforts in an Amputee Population

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ABSTRACT—Rehabilitation medicine attempts to teach the patient with a residual physical impairment to live and work at the highest level consistent with his disability. This requires the combined skills of many specialists. The medical audit of processes and outcome is an ideal tool to evaluate how well such a diversified team functions as a unit. The course of thirty-seven patients was reviewed. Nineteen amputees (51%) increased their ambulatory capabilities by at least one level. Of 16 patients who were dependent in self care from a wheelchair, 10 achieved wheelchair independence. Length of stay (L.O.S.) and increased mobility correlated in a direct fashion. L.O.S. further correlated with the time interval from amputation to admission. The longer the interval the longer L.O.S. required to achieve the same degree of improvement. Amputee patients make more rapid gains when admitted for rehabilitative efforts within 12 weeks of their amputation.

Evaluation of the effectiveness of any rehabilitative program in an amputee population is complicated by the different stages an amputee experiences in the course of the rehabilitative effort. The first phase, termed pre-prosthetic, is that period in which a concerted effort is made to have the patient reach the highest functional level in preparation for the artificial limb. A regimen of therapeutic exercises to strengthen the extremities, the trunk and especially the stump is initiated. This has to be done within the limits of the patient's tolerance, with age and cardiac status taken into account. One of the important aspects of this period of training is range of motion activities, particularly for the stump (i.e., hip and knee for below-knee amputees and the hip for above-knee patients). Contractures about the hip or knee can cause serious problems in prosthetics. Prevention of contractures, meticulous stump hygiene, proper shaping of the stump, walking with crutches, and independence in activities of daily living (ADL) are further goals to be achieved. Usual goals in the pre-prosthetic phase therefore are:

a) Independence in stump care
b) Independence in wheelchair management and transfers.
c) Stump maturation
d) Measurement for prosthesis

The patient is then discharged and readmitted when the prosthesis arrives. This is the prosthetic phase. The goals at this time are:

a) Assessment of gait capabilities, i.e., standing and transfers, restricted ambulation or free ambulation.
b) Re-evaluation of stump care
c) Re-evaluation of mobility status using wheelchair or with appropriate support devices and the prosthesis.

In an audit study of amputees, a distinction must be made between above-knee (AK) and below-knee (BK) amputations because of the difference in physical effort required for ambulation.[1, 2] We have therefore reviewed our amputee population considering

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the site of amputation as well as the stage of rehabilitation.

Results

Thirty-seven admissions between 10/74 and 12/75 were reviewed; this represented 49% of all amputee patients admitted to Gaylord Hospital in that period. The cases were randomly sampled according to the random numbers chart in Statistical Analysis for Business Decisions.[3] There were 24 males and 13 females in the study. Of the 37, 17 were admitted for pre-prosthetic training and 20 for prosthetic training. Patients who had multiple admissions following multiple procedures were excluded and compared separately. The length of stay at Gaylord Hospital and the interval in weeks from the amputation to admission to Gaylord may be seen in Table 1.

Table 1

STAGE OF REHABILITATION, LENGTH OF STAY AND INTERVAL PERIOD FROM AMPUTATION TO ADMISSION FOR 37 AMPUTEES

Pre-Prosthesis

	Below Knee	*Above Knee*	*Bilateral*
Total number of patients	4	7	6
*LOS Gaylord Range	21-41	16-34	12-51
mean	29	25	22
Interval Range (week)	2-16	1-4	1-16
mean	8	3	6

Prosthesis

	Below Knee	*Above Knee*	*Bilateral*
Total number of patients	5	7	8
LOS Gaylord Range (days)	8-44	14-34	9-35
mean	27	25	22
Interval Range (weeks)	12-24	2-24	8-24
mean	21	12	15

**Length of stay*

The average age of the amputees was 69.4 years (range 26-87), the median being 70.5 years. There was no correlation between the type of amputation (above-knee, below-knee, bilateral) and the age of the patient.

Associated medical diseases in these 37 patients are summarized in Table 2, illustrating the usual spectrum of concurrent diseases.

Table 2

ASSOCIATED MEDICAL DISEASES

	No. of Patients
Arterio-sclerotic heart disease	17
Diabetes mellitus	16
Peripheral vascular disease	5
Arterio-sclerotic obliterans	3
Occlusive vascular disease	1
Trauma	1
CVA - (r) hemi	1
Lupus vasculitis	1

Table 3 summarizes the incidence of complications in all subgroups upon admission to Gaylord Hospital.

Thus it may be seen that while 7 of 17 patients (42%) in the pre-prosthetic group were admitted with stump-skin problems, only 2 of 20 patients (10%) admitted for prosthetic training had this problem.

Table 3

COMPLICATING MEDICAL PROBLEMS

Preprosthetic group	*Below Knee*	*Above Knee*	*Bilateral*
Total number of patients	6	7	4
Contractures	-	1	1
Intractable pain	-	3	2
Peripheral neuropathy	-	-	-
Skin Stump	3	2	2
Associated medical disease	5	8	4
Prosthetic group			
Total number of patients	8	7	5
Contractures	1	-	1
Intractable Pain	1	1	1
Peripheral Neuropathy	-	1	-
Skin Stump	1	-	1
Associated Medical Disease	6	6	5

In these 37 admissions only 2 developed complications while at Gaylord. Of these one had intractable pain and the other developed skin stump irritation. Of 17 admissions for pre-prosthetic training, 11 were fitted for prosthesis and 6 were not considered to be good prosthetic candidates. Of the patients with above-knee amputations, 5 of 7 were fitted with a prosthesis; 5 of 6 patients with a below-knee amputation were fitted, whereas only 1 of 4 patients with a bilateral amputation was judged to be a prosthetic candidate. Of the admissions for prosthetic training all left Gaylord fitted with their prosthesis.

Increased Mobility

A graphic representation of the increase in mobility in the pre-prosthetic and prosthetic groups may be seen in Figures 1 and 2.

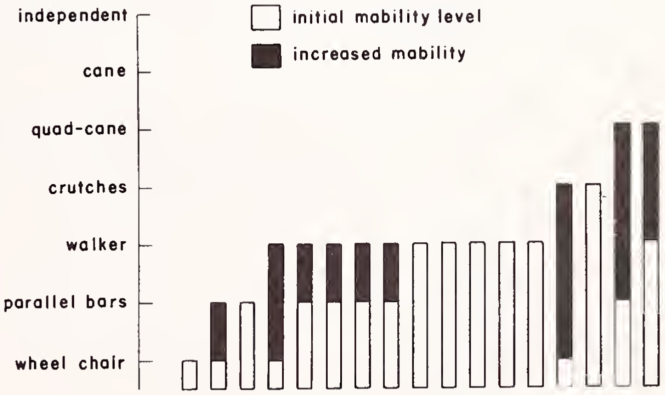

Figure 1
Graphic depiction of increased mobility in 17 pre-prosthetic admissions.

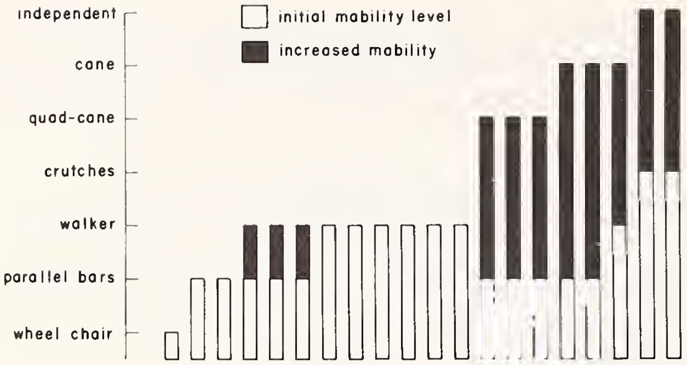

Figure 2
Graphic depiction of increased mobility in 20 prosthetic admissions.

Table 4 summarizes increased mobility patterns seen in the 37 patients. Increased mobility is demonstrated by the marked drop in those requiring wheelchair or parallel bars for mobility, (9 on admission, 3 on discharge, 16 on admission, 3 on discharge respectively) as well as the 9 patients who left the hospital ambulatory either with a quadriped cane, single point cane, or independently mobile. Patients with walker mobility on admission showed the least progress. This group comprised 13 admissions; only 2 of 13 showed improved mobility, however; increased endurance or safety awareness were not evaluated.

The period of time from amputation to admission for rehabilitation was recognized as variable. The effect of this time interval on increased mobility and length of stay (L.O.S.) was analyzed. The average time interval for all patients was found to be 12 weeks. Patients were then divided into two groups. Those admitted within 12 weeks of their amputation, (Group A) and those whose rehabilitation program started later than 12 weeks after their amputation (Group B). Increased mobility was defined as a rise of one level of mobility.

Patients who did not improve had an average L.O.S. of 24 days in Group A and 23.2 days in Group B. Patients who improved showed approximately the same level of improvement (2.33 vs. 2.9); however, patients in Group B took 5½ days longer to achieve this result. (L.O.S. 24.66 vs. 31) (See Table 5). Other variables such as the sex and age of the patient or incompleted evaluation processes had no demonstrable effect on L.O.S.

Table 5

EFFECT OF INTERVAL PERIOD FROM AMPUTATION TO ADMISSION ON L.O.S. AND AVERAGE IMPROVEMENT

	Total No. of Patients	*No. of Patients Improved*	*Average Improvement*	*LOS x days*
Time interval 12 weeks or less				
Group A	22	9	2.33 levels	25.66
Time interval more than 12 weeks				
Group B	15	10	2.9 levels	31

During the first week of hospitalization at Gaylord certain medical tests and evaluation procedures should be done. An analysis of Professional Evaluation Process is shown in Table 6. No correlation was found between delayed evaluations and increased length of stay.

Table 6

INCIDENCE OF SATISFACTION OF PROFESSIONAL EVALUATION PROCESS CRITERIA IN 37 AMPUTEE ADMISSIONS AUDITED

Process	*No. met*	*(%)*
PT evaluation 1st week	21	(56%)
OT evaluation 1st week	24	(64%)
Social Service Evaluation 1st week	32	(86%)
Initial Team notes 1st week	35	(94%)
Incidence of Satisfaction of Medical Work-up Criteria		
H & P (24 hrs.)	37	(100%)
CBC 1st week	37	(100%)
UA 1st week	30	(81%)
Electrolytes 1st week	23	(62%)
BUN or Creatinine 1st week	36	(97%)
FBS or 2/hr. PC 1st week	33	(89%)
Chest x-ray first week	36	(97%)
ECG 1st week	34	(91%)
X-ray of stump 1st week	2	(5%)

An indicator of significant improvement for the amputee is the ability to be totally independent in self-care from a wheelchair; this is called wheelchair independence. Of 37 amputees studied, 16 were not wheelchair independent upon admission; of these, 10 achieved full wheelchair independence while at Gaylord.

Table 4

INCREASED MOBILITY IN 37 AMPUTEES

	Wheelchair	*Parallel Bars*	*Walker*	*Crutches*	*Quad Cane*	*Cane*	*Independent Mobility*
Pre-prosthetic							
Admission	4	6	6	1	0	0	0
Discharge	1	1	11	2	2	0	0
Prosthetic							
Admission	1	10	7	2	0	0	0
Discharge	1	2	9	0	3	3	2
Total Patients							
Admission	5	16	13	3	0	0	0
Discharge	2	3	20	2	5	3	2

Discussion

The retrospective audit of rehabilitative effort in an amputee population has shown that increased mobility was achieved in 19 of 37 patients treated (51%). Wheelchair independence was achieved in 10 of 16 patients (63%). This result is of great importance when one realizes that the amputee achieved independence from outside help to wash, dress, and be mobile in his home environment. In 9 of 37 patients (24%) medical complications such as unstable diabetes, hypertension, and angina pectoris occurred during the therapeutic program. A direct correlation was found between increased L.O.S. and the time interval for amputation to admission. The longer the interval, the more time was required to achieve the same degree of improvement (See Table 5). This is not surprising considering the age of the patients involved. In this light one must also view L.O.S. of the amputee population. Whereas the bilateral amputee L.O.S. at Gaylord was consistent with our predetermined standards, both above-knee and below-knee amputees stayed 4-7 days longer than the predetermined standard. It must be pointed out, however, that the predetermined standards were taken from a national average for amputees.[4] This is not a realistic standard for Gaylord's amputee population whose average age ranges from 70-80 years for the above-knee and below-knee amputees. Furthermore, as can be seen from Table 5, increased L.O.S. was mainly due to those patients who improved. Patients who showed no improvement in mobility were discharged within 24 days.

Notwithstanding the results achieved, areas of deficiency were identified. The most important of these being lack of documentation of certain key parameters: 1) Stump care independence was achieved in 16 of 37 patients. However, there was no mention in 13 other charts as to whether the patient was independent in stump care upon admission. 2) There was no documentation as to increased endurance and safety awareness in ambulation. 3) Professional Evaluation Processes were not completed in the specified time originally established. Whereas this did not increase L.O.S., one should strive to complete evaluations in the specified time or document the reason why this was not achieved. 4) Radiographic examination of the amputee's stump was only performed in 5% of admissions. 5) Electrolytes were measured in only 66% of patients whereas it was a requirement by Gaylord's predetermined standards.

Recommendations

1) The physical therapy department be charged with the preparation of a new flow sheet for amputee patients to include the documentation of stump care independence, endurance and safety consciousness of the amputee.

2) Professional evaluation process be completed in the specified time or reasons for the delay be documented.

3) Radiographic examination of the amputee's stump be a mandatory part of the admission examination.

4) Determination of electrolytes be done as indicated rather than as routine.

5) Predetermined standards for L.O.S. in the amputee population be amended to realistic figures for the patient characteristics and treatment goals particular to Gaylord.

6) A follow-up study to be undertaken one year hence to document the implementation of the above recommendations and reassess the mobility outcome performance.

REFERENCES

1. Rehabilitation Medicine, Rusk HA, C.V. Mosby Co., 1958, p. 358.
2. Handbook of Physical Medicine and Rehabilitation, sec. edit., Krusen FH, editor, W.B. Saunders Company, 1971, p. 134.
3. Statistical Analysis for Business Decisions, Spurr William A and Bonini CP, Richard P. Irwin, Inc., Homewood, Illinois, 1973, p. 724.
4. Melvin JL et al. Professional Standards for Physical Medicine and Rehabilitation. Ad Hoc Committee on Peer Review. American Academy of Physical Medicine and Rehabilitation, Jan., 1974.

Myxedema Madness: Psychosis as an Early Manifestation of Hypothyroidism

FRANK DAVIDOFF, M.D. AND JOHN GILL, M.D.

ABSTRACT—A case of hypothyroidism in a young woman is described in which changes in personality and behavior were the most prominent manifestations at the time of diagnosis. Shortly after initiation of moderate-dose replacement therapy she became acutely and severely psychotic; after withdrawing and then reinstituting therapy at a lower dose, she improved progressively; two months later her mental state had returned to normal. This patient's course emphasizes the observations of other authors that psychosis may occur as the earliest expression of myxedema, and may overshadow its other manifestations; rapid replacement therapy may transiently exacerbate the psychotic state, although a cause and effect relationship is hard to establish. Although not common, myxedema psychosis is important to recognize, since it represents a reversible form of severe mental illness.

The psychosis of myxedema, while not common, is an important clinical phenomenon, since it represents one of the relatively few forms of severe mental illness which, if recognized, is reversible with specific replacement therapy. We report here the case of such a patient who presented significant problems in both diagnosis and management, to emphasize the points that, 1) the psychosis may be a prominent early manifestation, at times the presenting complaint;[1] 2) the psychosis may overshadow the other signs and symptoms of hypothyroidism;[2] and 3) rapid initiation of replacement therapy may possibly lead to transient worsening of the psychotic state.

Case Report

L.W., UCHC #074305

A 24-year-old married woman and mother of four children under age seven presented to the emergency department on April 29, 1975, with complaints of stiffness and swelling of the arms and legs, and lethargy. When ititially examined, her general appearance did not suggest hypothyroidism, and was very similar to that observed later after about three weeks of replacement therapy (Figure 1). Her blood pressure was 160/100, the skin was cool, moist and showed mottled cyanosis, her thyroid was minimally and diffusely enlarged, but was not tender. There was no edema or other abnormality of the extremities; neurological exam revealed lethargy, mental slowing and she complained of being inordinately tired; deep tendon reflexes were slowed in the relaxation phase. Chest x-ray showed no cardiac enlargement; EKG revealed low voltage in the limb leads and non-specific ST-T changes.

On more detailed review of her history in the office the following day, she described multiple complaints beginning with rhinorrhea, dry cough, hoarseness and dizziness, following the birth of her third child in 1971. At about that time she developed an episode of swelling of the left knee: x-rays were said to reveal fluid behind the kneecap; this problem was attributed to the oral contraceptive she was then taking; the medication was stopped, and the swelling resolved. She had then complained of dry skin and occasional chest pains intermittently during the next three years, and was seen by several physicians for these complaints. Gall bladder and chest x-rays and mammography had all been normal. The possibility of thyroid disease had been suggested on several occasions, but no thyroid studies were performed. She had conceived her fourth child without difficulty and delivered a normal healthy infant in November, 1974. She nursed the child for several months; menses had restarted in January, 1975, and were normal in timing though slightly heavier than usual.

About six weeks prior to these initial visits to the Health Center she had noted occasional substernal heaviness, stiffness and swelling of the hands, clumsiness of fine movements, and purplish discoloration of the skin. There had been no recent changes in hair texture or voice and only mild, transient constipation. Her most prominent symptoms had been increasing anxiety and disorganiza-

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tion; she was unable to concentrate or to find things around the house, felt increasingly depressed, and noticed that loud noises and lights bothered her. These changes in mental state had increased to the point where she was unable to perform her usual daily tasks. She was evasive when questioned about hallucinations or delusions but denied these symptoms. Physical examination revealed no additional findings, except that the liver edge was felt two fingerbreadths below the right costal margin.

Several days later, laboratory reports of a total T_4 of <1 μg% (nl 2.4-6.8), T_3-resin uptake of 16.5% (nl 22-35%), and SGOT of 44 (nl up to 40), SGPT of 13 (nl 0-48), and LDH of 352 (nl up to 320) were reported and she was admitted to the hospital on May 2, 1975, for further evaluation and therapy. Repeat determinations of T_4 and T_3-resin uptake on admission were <1 μg% and 16%, respectively and TSH level determined by radioimmunoassay was greater than 240 international units/ml (nl 2-12). Antithyroid antibodies were negative. While in the hospital, she complained of multiple somatic symptoms, particularly dizziness and pressing substernal pain; blood pressure and EKG's did not change. On May 4, 1975, she was started on 0.1 mg of L-thyroxine. Two days later she expressed the conviction that she was going blind and deaf, and was going to have a heart attack; she also admitted she could hear voices talking in the nurses' station even though her door was closed. That same day she was incontinent of urine and feces in bed; she did not lose consciousness during this episode but claimed she was unable to move or to summon the nurses. She was somewhat calmer, and denied further unusual thoughts in the next several days and was discharged on May 9, 1975. She was readmitted three days later because of rapidly increasing symptoms of confusion, alternating hyperactivity and lethargy, paranoid delusions and hallucinations, most prominent at night. In the hospital she had periods of extreme disorientation, confusion and hyperactivity requiring seclusion and restraints for several days: on one occasion she smashed a lamp, and on two others lacerated her scleral conjunctiva with sharp objects. She was convinced she was dying and described hallucinations of insects on her skin. Because of the possibility that the thyroid replacement may have exacerbated her symptoms, L-thyroxine was stopped for several days, then restarted in a dose of 0.025 mg. On chlorpromazine therapy she slowly became calmer, and over a period of about seven to nine days recovered to the point where she was only confused intermittently for short periods each day. During her more lucid intervals she was still obsessed with somatic symptoms and developed extreme preoccupation with her sexual history and impulses. On May 15, 1975, her TSH was reported to be 44 international units ml, and her T_4 on May 22, 1975, was 3.4. During the reminder of her hospital stay her mental status slowly returned toward normal; toward the end of her hospital course, she developed chlorpromazine jaundice which resolved on withdrawal of the drug, and a streptococcal pharyngitis which was uneventfully treated with oral penicillin, and was discharged on June 7, 1975.

During initial followup her dose of L-thyroxine was increased to 0.2 mg daily over a period of about six weeks, and she gradually resumed her usual daily activities. Her mental status has progressively returned to normal during a followup of 10 months; she now feels better physically than she had in the past three to four years, no longer complaining of chest pain, coldness or stiffness of the extremities. Her thyroid gland is no longer palpable.

On November 19, 1975, she complained of burning and dryness of the eyes; physical examination revealed only slight conjunctival injection; a Schirmer's test revealed a marked reduction in tear production and a diagnosis of keratoconjunctivitis sicca was made. She has been treated symptomatically with methylcellulose eye drops.

Discussion

Although the exact duration of this patient's hypothyroidism is not clear, the crescendo of her multiple somatic complaints, in particular the chest pain[3], which had led to increasingly frequent physician visits, probably represented mild but increasing hypothyroidism over a period of four years, since these symptoms have completely disappeared with replacement therapy. The severity of hypothyroidism was not sufficient, however, to prevent conception, normal pregnancy and delivery in the year preceding the diagnosis of hypothyroidism.

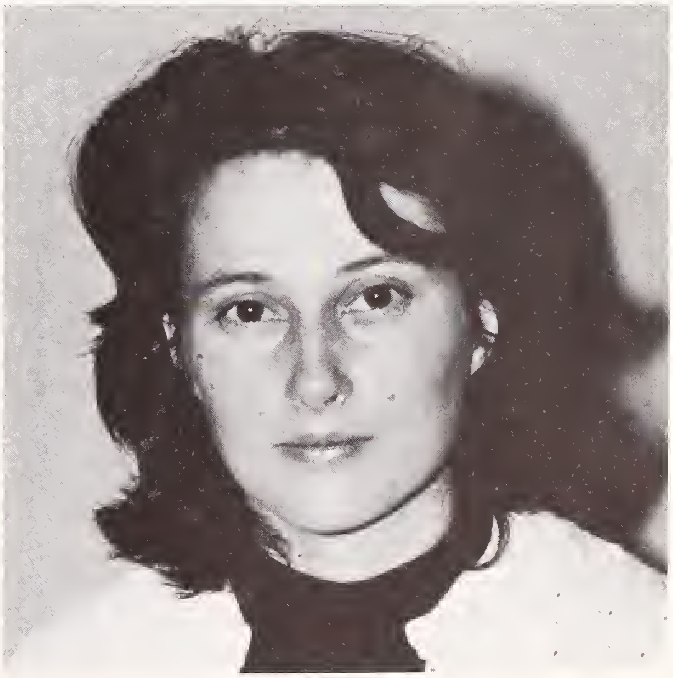

Figure 1

The appearance of the patient after three weeks of replacement therapy: she was receiving 25 ug of L-thyroxine daily at the time of this picture. Her appearance is not significantly different than at the time of diagnosis.

In retrospect, her earlier joint symptoms[4], constipation and mild hypertension also appear to have been the result of progressive myxedema. At the time of her initial referral to this medical service, however, the overwhelming problem was that of anxiety, depression, somatic preoccupation and increasingly bizarre dramatic behavior. Her general appearance did not suggest hypothyroidism (Figure 1), and her social situation appeared to contain sufficient stresses to explain at least part of her extreme anxiety.

Other authors have emphasized the point that although in most patients several months to a few years elapse between the appearance of clinical myxedema and psychotic symptoms, in some the mental symptoms precede the myxedematous state[1]. The correlation between severity or duration of the myxedema and the occurrence of mental changes does not seem to be close, therefore, although there is a rough parallel between the recovery of a normal EEG pattern measured quantitatively, and the disappearance of the abnormal mental state.[1,5] There is little doubt that the hypothyroidism is responsible by some mechanism for the psychosis since replacement with thyroid hormone nearly always leads to complete mental clearing even if the psychosis has been present for some time, unless it is of extremely long standing.[1,2] In a few instances[2,5,6] the institution of replacement therapy has appeared to exacerbate the psychosis transiently, as was suggested in our patient by the rapid expression of visual and auditory hallucinations and unexplained incontinence within 48 hours of beginning therapy; exacerbation is the exception, however, and the majority of patients respond with progressive mental improvement.[1,2,5,8,9,11,14] The true incidence of psychosis in myxedema is not known with certainty; although the original review of the problem in 1888[6] indicated a frequency of about 15%, these patients were a selected group and were of course untreated. More recent psychiatric studies of unselected hypothyroid patients have revealed an incidence of about 5% (2 out of 37 patients) but the total population studied has not been large.[8,9] The exact nature of the less pathologic mental changes in hypothyroidism has now been studied in some detail: depressive affect[8] and anxiety[9] are quite common, and cognitive defects, including difficulty with attention, abstraction and memory have been clearly demonstrated and quantitated in the majority of non-psychotic hypothyroid patients[8]. These changes are largely reversed by thyroid hormone replacement.[8,9] Even in the non-psychotic patient with hypothyroidism, some paranoid ideation and unusual thought content are relatively prominent when carefully looked for[8]. The original description of the insanity of myxedema emphasized the features of mania, depression, and the marked predominance of suspicion and self-accusation[7]; Kraepelin[10] subsequently even suggested the existence of a specific myxedema psychosis. However, other authors, including Asher, who coined the term "myxedematous madness"[11], have not been able to delineate a completely characteristic syndrome. Indeed patients with the full-blown psychosis of myxedema may present a wide range of symptoms, including severe depression, delusions, with ideas of persecution, vivid hallucinations (visual and auditory) and hyperactive behavior. In addition to the affective components, features of "organic dementia" or dilirium are often present[5], although rarely as severe as in the present patient. Milder degrees of delirium, i.e. loss of attention, concentration, intellectual endurance and utilization of concepts without sensory guidance, may be sensitively detected by loss of the ability to perform serial subtraction of numbers[5].

The mechanism of psychosis in myxedema has been the subject of speculation and study for many years. Cerebral blood flow is markedly reduced in myxedema, probably as a result of a large rise in cerebral vascular resistance; O_2 and glucose utilization are also diminished,[12] changes which probably underlie the alterations in EEG activity.[1,5] The changes in the EEG correlate quite well with the overall severity of the myxedema, as reflected in the BMR,[13] but since, as noted earlier, there is no close correlation between severity of myxedema and the presence of psychosis, we cannot attribute the latter simply to gross changes in blood flow or nutrient consumption.

One patient with myxedema psychosis was found to have elevated quantities of catecholamine metabolites in urine in amounts which approximated those found in patients with other affective psychoses.[14] The increased urine catechols may in part have reflected the elevated circulating levels of catechols which have been described in the plasma of myxedematous subjects.[15] This increase in circulating catechols may represent a compensatory mechanism for reduction of body heat loss, and may contribute to the hypertension observed in many hypothyroid patients; however, the involvement of catecholamines in the mechanism of myxedema psychosis is certainly not established.

More recently, the findings that Thyrotropin releasing hormone is present widely in cerebral tissue[16,17] and the improvement in at least some depressed patients treated with TRH[18-21] have raised the possibility that this releasing hormone may be directly involved in the production of certain psychotic states. The observation that the TSH level in our patient was extraordinarily high suggests that despite her relatively mild stigmata of hypothyroidism. TRH may have been present in unusually large quantities in hypothalamic and, possibly, other areas of cerebral tissue, thus contributing to the generation of the psychosis. Quantitation of TSH in the peripheral circulation and TRH levels in spinal fluid of psychotic and non-psychotic myxedematous patients will be of great interest in future attempts to establish the involvement of TRH in the mechanism of myxedema psychosis.

Acknowledgments

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REFERENCES

1. Logothetis, J, Psychotic behavior as the initial indicator of adult myxedema, *J Nerv Mental Dis* 136:561-568, 1963
2. Karnosh, LJ and Stout, RE, Psychoses of myxedema, *Am J Psychiat* 91:1263-1274, 1935
3. Ayman, D, Rosenblum, H and Falcon-Lesses, J, "Myxedema heart" without evidence of cardiac insufficiency. *J Am Med Assn* 98:1721-1728, 1932
4. Bland, JH and Frymoyer, JW. Rheumatic syndromes of myxedema, *New Engl J Med* 282:1171-1174, 1970
5. Browning, TB, Atkins, RW and Weiner, H, Cerebral metabolic disturbances in hypothyroidism. Clinical and electroencephalographic studies of the psychosis of myxedema and hypothyroidism. *AMA Arch Int Med* 93:938-950, 1954
6. Means, JH, deGroot, LJ and Stanbury, JP, *The Thyroid and its Diseases*, 3rd Edition, McGraw-Hill, New York, 1963, pp 337-339.
7. Report on Myxedema. Report of a Committee of the Clinical Society of London, Tr Clin Soc London (Suppl.) 27:18, 1888.
8. Whybrow, PC, Prange, AJ and Treadway, CR, Mental changes accompanying thyroid gland dysfunction, *AMA Arch Gen Psychiat* 20:48-63, 1969
9. Jain, VK, A psychiatric study of hypothyroidism, *Psychiat Clin* 5:121-130, 1972
10. Kraepelin, E, Zur Myxodemfrage, *Neurol. Zbl.* 9:65, 1890
11. Asher, R, Myxedematous madness, *Brit Med J* 2:555-565, 1949
12. Scheinberg, P, Stead, EA, Jr, Brannon, ES and Warren, JV, Correlative observations on cerebral metabolism and cardiac output in myxedema, *J Clin Invest* 29:1139-1146, 1950
13. Ross, DA and Schwab, RS, The cortical alpha rhythm in thyroid disorders, *Endocrinology* 25:75-79, 1939
14. Treadway, CR, Prange, AJ, Jr Doehne, EF, Edens, CJ and Whybrow, DC, Myxedema psychosis. Clinical and biochemical changes during recovery, *J Psychiat Res* 5:289-296, 1967
15. Stoffer, SS, Jiang, N-S, Gorman, CA and Pikler, GM, Plasma catecholamines in hypothyroidism and hyperthyroidism, *J Clin Endoc Metab* 36:587-589, 1973
16. Winokur, A and Utiger, RD, Thyrotropin-releasing hormone: regional distribution in rat brain, *Science* 185:265-267, 1974
17. Brownstein, MJ, Palkovits, M, Saavedra, JM, Bassiri, RM and Utiger, RD, Thyrotropin-releasing hormone in specific nuclei of rat brain. *Science* 185:267-269, 1974
18. Kastin, AJ, Ehrensing, RH, Schalch, DS and Anderson, MS, Improvement in mental depression with decreased thyrotropin response after administration of thyrotropin-releasing hormone, *Lancet* 2:740-742, 1972
19. Prange, AJ Jr., Wilson, IC, Lara, PP, Alltop, LB and Breese, GR, Effects of thyrotropin-releasing hormone in depression, *Lancet* 2:999-1002, 1972
20. Ehrensing RH, Kastin, AJ, Schalch, DS, Friesen, HG, Vargus, JA and Schally, AV, Affective state and thyrotropin and prolactin responses after repeated injections of thyrotropin-releasing hormone in depressed patients, *Am J Psychiat* 131:714-718, 1974
21. Coppen, A, Montgomery, S, Peet, M, Baily, J, Marks, V and Woods, P, Thyrotrophin-releasing hormone in the treatment of depression, *Lancet* 2:433-435, 1974

Virulence for man of a human influenza-A virus antigenically similar to "classical" swine viruses

An influenza-A virus antigenically related to "classical" swine viruses was isolated from recruits at Fort Dix, New Jersey, in an outbreak reaching its peak from January 20 to February 20, 1976. The isolate was injected into 6 human volunteers at this facility. Clinical reactions were mild although all volunteers contracted the disease. The longest period for which the virus was excreted was eight days; shortest, three days. In its virulence for man, the New Jersey strain was intermediate between human and animal virus, and was quite clearly more virulent than known swine viruses. With certain reservations necessary in experiments of this kind, the authors nevertheless found it possible to draw a few tentative deductions about the potential importance of the virus. Although increase in virulence through many passages through man is a possibility, this is not known to occur under natural conditions even though it can be done artificially. As far as can be judged, the virus was not specially predisposed to spread among people, failing to displace A/Victoria/75 in a closed community of young people when it had a considerable competitive advantage in regard to the frequency of protective antibody, and it did not gain an appreciable foothold in the U.S. population. Nevertheless, misgivings are justified, and efforts should be redoubled to discover how the virus was transformed. Beare, A.S., and Craig, J.W.: Lancet **1**: 4 (July 3) 1976

The Value of Monitoring Pulmonary Artery Pressure in Clinical Practice

CAYETANO T. DIZON, M.D. AND PAUL G. BARASH, M.D.

I. Introduction

Central venous pressure, used to assess the circulatory dynamics is maintained by vascular capacitance, circulating blood volume, and cardiac pump action. Evaluating of circulatory function has been of immense practical value to physicians, charged with the care of the acutely and critically ill.[1-4] However, central venous pressure only accurately reflects right ventricular filling pressure. Significant alterations in cardiovascular performance can produce disparate right and left ventricular function curves resulting in unequal action and efficiency.[2,5-10] Central venous pressure can be grossly misleading in variety of circulatory states like acute myocardial infarction,[5,6] multiple trauma, and cirrhosis of the liver.[2,11]

The advent of the flow-directed balloon-tipped pulmonary artery catheter[12] provides easy and rapid bedside monitoring of the critically ill. When ventricular dysfunction is present, pulmonary artery monitoring offers accurate assessment of cardiac pump action. Catheterization of the right ventricle and pulmonary artery with a Swan-Ganz® catheter can be accomplished rapidly and safely without the use of fluoroscopy. Other important parameters obtained include cardiac output, right atrial and ventricular pressures, mixed venous oxygen tension (pVO_2). This information combined with heart rate, rhythm and arterial pressure provides important data on myocardial performance, and success or failure of therapeutic interventions.

II. Routes of Insertion

The catheter is introduced percutaneously or by venotomy.[12-16] Routes of insertion include the internal jugular, brachial, median basilic, femoral, subclavian and external jugular veins. Currently, we use a number 7F triple lumen thermodilution catheter (Edwards Labs #93-113-7F) (Fig. 1). Of the two fluid-filled lumens, the proximal lumen ends at the 30 cm mark and is usually positioned in the right atrium if the distal lumen is appropriately positioned in the pulmonary artery. A thermistor incorporated into the catheter is used to measure cardiac output via thermodilution technique.

We use an introducer[14] (Yale-New Haven Special, Cook Inc., Bloomington, Indiana) for percutaneous insertion, using landmarks as described by Delfalque[15] and following the Seldinger technic.[17] With the 8F sheath of the introducer in place, the catheter is progressively passed to the right atrium, right ventricle, pulmonary artery and wedge position using continuous pressure and EKG monitoring (Fig. 2: pressure waves from right atrium to pulmonary capillary wedge). Average pulmonary artery catheterization

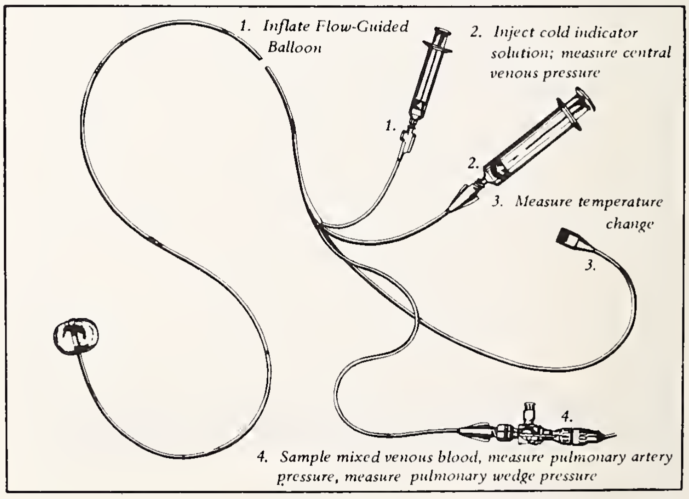
1. Inflate Flow-Guided Balloon
2. Inject cold indicator solution; measure central venous pressure
1.
2.
3. Measure temperature change
3.
4.
4. Sample mixed venous blood, measure pulmonary artery pressure, measure pulmonary wedge pressure

Figure 1

A 7F triple lumen thermodilution Swan-Ganz® catheter (Edwards Labs #93-113-7F, Courtesy of Edwards Laboratories).

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has been accomplished from balloon inflation in as short as 10 seconds.[5, 12] Average time of insertion (from surgical prep until 8F sheath is in situ) is approximately 10 minutes in our institution. However, as experience is gained with the technique, the insertion time is as little as 3 minutes.[18] Pulmonary capillary wedge position is verified by:[19] 1) the characteristic pressure wave with the balloon inflated, and a pulmonary artery pressure wave upon deflation of the balloon, 2) a mean pressure lower than the mean pulmonary arterial pressure, 3) the pressure of respiratory variation, 4) the ability to withdraw arterialized blood. When the operative site prohibits the use of the internal jugular, a proximal basilic vein cutdown is used.[13]

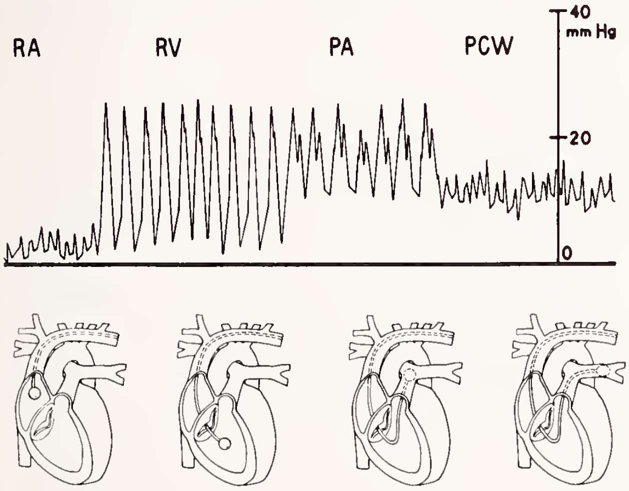

Figure 2

Pressure waves in relation to catheter position from right atrium to pulmonary capillary wedge position.

III. Physiologic basis of pulmonary artery monitoring

The shape of the right and left ventricular filling curves over a wide range of filling pressures substantiate the use of pulmonary artery pressure monitoring to assess overall myocardial function.[5-8, 20-22] Variations in the circulatory state may cause different ventricular function curves. The introduction of balloon flotation catheters have permitted an independent monitoring of each ventricle when disparate ventricular function is present. With the catheter passed distally into the pulmonary vascular bed and the balloon inflated, balloon-occluded pressure or wedge pressure is obtained. Since the balloon approximates vessel size, the pressure distal to the balloon which comes from the pulmonary capillaries and veins allows transmission of left atrial pressure. Therefore, for all practical purposes, wedge pressure is a phase-delayed, amplitude-damped equivalent of left atrial pressure.

Left ventricular performance is modified by ventricular end diastolic fiber length (Starling's Law).[23] The higher the degree of stretch (initial length) of the myocardial fiber, the greater the force of contraction within physiologic limits. The physiologic and clinical importance of mean atrial pressure is thus evident when one considers that symptoms of cardiac failure result directly or indirectly from an elevated atrial pressure. Although normal pulmonary capillary wedge pressure is 8-10 mmHg, optimal cardiac output in normal patients can be achieved with a mean "wedge" pressure between 14-18 mmHg.[7, 24] A pulmonary capillary wedge pressure of 18-20 mmHg can cause dyspnea, 20-30 mmHg transudation of fluid (pulmonary congestion), and 30-35 mmHg frank pulmonary edema.[25]

Knowledge of wedge and mean left atrial pressure is also important in the assessment of intravascular pressure exerted at the site where pulmonary-fluid transudation occurs. The pulmonary capillary wedge pressure then serves to indicate pulmonary venous pressure, important in the assessment of pulmonary edema, since it determines the movement of fluid from the intravascular space to the interstitium.

IV. Uses and Indications

Arrhythmic deaths in patients with acute myocardial infarction has decreased, and pump failure of the heart has emerged as the main cause of death.[5] This results in congestive heart failure and shock. Left heart catheterization has been performed in acute myocardial infarction, and some specific data are now being collected in left ventricular function.[22] However, the method is quite hazardous and not advised for general use. The importance of left atrial pressure in the regulation of pulmonary and circulatory dynamics is well known but just like left ventricular catheterization, this method is not sufficiently practical or safe.[25]

The level of pulmonary capillary wedge pressure has major clinical importance in acute myocardial infarction. This measurement directly reflects the pulmonary venous pressure which when elevated determines the degree of pulmonary congestion and edema. In addition, the level of pulmonary capillary wedge pressure correlates closely with the left ventricular end diastolic pressure which is a major factor in the evaluation of left ventricular performance, as reflected by the Frank-Starling ventricular function curve.

The use of diuretics will usually help regulate pulmonary pressure by the use of the Swan-Ganz® catheter with a high degree of accuracy.[27] The pulmonary capillary wedge pressure appears to be a reliable index in which therapeutic maneuvers can be based, such as the above. Digoxin and/or diuretics would be both indicated if pulmonary artery pressure and pulmonary capillary wedge pressure were elevated and when other signs of heart failure are evident. We usually use such therapy until the pulmonary capillary wedge pressure is below 18 mmHg preferably below 14 mmHg.

The Swan-Ganz® catheter also permits more accurate mixed venous sampling compared to CVP sampling.[28] The oxygen tension in mixed venous blood ($p\bar{V}O_2$) reflects tissue perfusion and oxygenation. Oxygen saturation in the right atrium can be affected by the superior vena cava, inferior vena cava and coronary sinus. For example, oxygen saturation in the inferior vena cava is usually higher since it reflects perfusion of kidney which is an organ with a high shunt fraction, whereas the superior vena cava and coronary sinus reflect blood flow from organs that are great extractors of oxygen. It is well known that oxygen consumption is maintained in the face of decrease organ blood flow by increased oxygen extraction by tissues. This is manifested by an increase in arteriovenous oxygen tension ($A\text{-}VO_2$) difference. In these instances $p\bar{V}O_2$ is expected to decrease. The decrease signifies inadequate oxygen delivery which can result from low cardiac output, low hemoglobin, etc.

The importance of monitoring left atrial pressure in the post-operative management of patients undergoing open heart operations is well documented.[26] The Swan-Ganz® catheter may be used to monitor left atrial pressure without the associated hazards like accidental dislodgement, arterial air embolism, etc. While monitoring the EKG Intra-operatively, arterial blood pressure (cuff) may be adequate for the healthy patient, but it may be grossly inadequate for the critically ill. Direct continuous arterial monitoring, right atrial pressure (CVP) and left atrial pressure (pulmonary capillary wedge pressure), and cardiac output are important variables which are readily available for the precise and rapid evaluation of cardiac status intra- and post-operatively.

The provision for measurement of cardiac output by thermodilution is an important variable which can otherwise aid in the overall assessment of patients. [29-31] Briefly, the principle is: a known amount of a cold indicator (5% Dextrose in H_2O at O-20°C) is injected into the superior vena cava or right atrium, and the resultant change in blood temperature is detected in the pulmonary artery. The cardiac output is inversely proportional to the fall in temperature. The technique is quite simple, does not require withdrawal of blood during measurements nor removal of blood for calibration. Calibration is simple and accurate. There is no recirculation, so that a small bedside computer (using certain constants) can be used to determine the area beneath the curve, and provide a numerical value of cardiac output.[36]

Swan-Ganz® catheters are inserted if the patient's physical status is poor and major surgery is contemplated. We have defined our major indications for the use of the Swan-Ganz® catheter as follows: 1) patients with marginal cardiovascular reserve, and/or ischemic myocardial disease; 2) surgical procedures associated with large blood loss and/or fluid shifts; and 3) elective induced hypotension.[18] The incidence of significant morbidity relative to the utilization of pulmonary artery catheters in the perioperative period is minimal. The information obtained from the utilization of these catheters far outweighs the risk of complication.

V. Pitfalls and Complications

Known and reported sequelae to Swan-Ganz® catheter insertion are atrial and ventricular arrythmias, balloon rupture, intracardiac knotting, thrombus formation, pulmonary infarction, and perforation.[32 35] In our institution, arrhythmias were usually transient in nature and did not require any pharmacologic intervention. However, there have been a few reports of fatal arrythmias and prompt therapy is advised.

Balloon rupture has been known to occur especially in catheters used for more than 72 hours. This is prevented by discarding or changing catheters every 48 hours, thereby minimizing rupture due to deterioration of the catheters.

Thrombus formation and intracardiac knotting have been reported. The former can be avoided by a constant infusion of heparinized 5% Dextrose solution (10 "u" heparin/ml).[33] The latter can be avoided by discontinuing insertion if the right ventricle is not reached at 60 cm from the right antecubital fossa, 35 cm from the internal jugular and subclavian veins, and 50 cm from the femoral vein.

Although infrequent, pulmonary infarction has been thought the most common complication of Swan-Ganz® catheterization. This occurs when the catheter is kept in a wedged position continuously for three minutes or more. Measures taken to avoid this include: 1) intermittent monitoring of wedge pressures with the balloon inflated no longer than two minutes and 2) use of chest X-ray to determine position of the catheter.

Perforation, septic embolization and pulmonary hemorrhage have been reported but are of unusual extreme occurrence.

VI. Summary

A superior alternative to CVP monitoring in evaluating the circulatory dynamics of a patient is presented. Pulmonary artery catheterization offers rapid and accurate bedside and perioperative monitoring of the critically ill. In conditions where cardiovascular performance is altered, CVP monitoring can be grossly misleading, and pulmonary artery monitoring a necessity. The abundance of data obtained from the Swan-Ganz® catheter facilitates effective and timely therapeutic interventions in the management of the critically ill.

REFERENCES

1. DeLaurentis DA, Hayes M, Matsumoto T, et al: Does central venous pressure accurately reflect hemodynamic and fluid volume patterns in the critical surgical patient. Amer J Surg 126:415, 1973.
2. Archer G, Cobb LA: Long term pulmonary artery pressure monitoring in the management of the critically ill. Ann Surg 180:747-752, 1974.
3. Swan HJC: The role of hemodynamic monitoring in the management of the critically ill. Crit Care Med 3:83-89, 1975.
4. Swan HJC: Balloon flotation catheters: Their use in hemodynamic monitoring in clinical patients. JAMA 233:865-867, 1975.
5. Swan HJC, Forrester JS, Danzig R, et al: Power failure in acute myocardial infarction. Progr Cardiovasc Dis 12:568, 1970.
6. Forrester JS, Diamond G, McHugh TJ, et al: Filling pressures in the right and left sides of the heart in acute myocardial infarction. N Engl J Med 285:190, 1971.
7. Bouchard RJ, Gault JH, Ross J Jr: Evaluation of pulmonary arterial end diastolic pressure as an estimate of left ventricular end diastolic pressure in patients with normal and abnormal left ventricular performance. Circ 44:1072, 1971.
8. Civetta JM, Gabel JC, Laver MB: Disparate ventricular function in surgical patients. Surg Forum 22:136, 1971.
9. James PM, Meyers RT: Central venous pressure monitoring: Misinterpretation, abuses, indications and a new technic. Ann Surg 175:693, 1972.
10. Fitzpatrick GF, Hampson LG, Burgess JH: Bedside determinations of left atrial pressure. J Canad Med Assoc 106:1293-1298, 1972.
11. Civetta JM, Gabel JC: Flow directed-pulmonary artery catheterization in surgical patients: Indications and modifications of technic. Ann Surg 176:753-756, 1972.
12. Swan HJC, Ganz W, Forrester J,et al: Catheterization of the heart in man with the use of a flow directed balloon-tipped catheter. N Engl J Med 283:447, 1970.
13. Mandel S, Barash P: The proximal basilic vein: A new approach for introduction of a flow guided catheter into the pulmonary artery. J Th Surg 71:376-377, 1976.
14. Barash P, Dizon C: An introducer for intra-operative percutaneous insertion of a Swan-Ganz catheter. Anes Analg (In Press).
15. Defalque RJ: Percutaneous catheterization of the internal jugular vein. Anes Analg 53:116-121, 1974.
16. Civetta JM, Gabel JC, Gamer M: Internal jugular vein puncture with a margin of safety. Anesthesiology 36:622-623, 1972.
17. Seldinger SI: Catheter replacement of the needle in percutaneous arteriography. Acta Radiologica 39:368-376, 1953.
18. Katz J, Cronau L, Mandel S, et al: Pulmonary artery flow guided cathethers in the peri-operative period. Crit Care Med 4:99. 1976.
19. Yu PN: Pulmonary arterial wedge pressure, Pulmonary Blood Volume in Health and Disease, Philadelphia, Lea and Febiger, 1969, pp 31-32.
20. Falicov RE, Resnekov L: Relationship of the pulmonary artery end diastolic pressure to the left ventricular end diastolic pressure and mean filling pressures in patients with and without left ventricular dysfunction. Circ 42:65, 1970.
21. Jenkins BS, Brandley RD, Brantwaite MA; Evaluation of pulmonary arterial end diastolic pressures as an indirect estimate of left atrial pressure. Circ 42:75, 1970.
22. Rutherford BD, McCann WS, O'Donnovan TPB: The value of monitoring pulmonary artery pressure for early detection of left ventricular failure following myocardial infarction. Circ 43:655, 1971.
23. Braunwald E, Frahm CJ: Studies on Starling's Law of the heart. IV. Observations on the hemodynamic functions of the left atrium in man. Circ 24:633-642, 1961.
24. Crexells C, Chatterjee K, Forrester JS, et al: Optimal level of filling pressure in the left side of the heart in acute myocardial infarction. N Engl J Med 289:1263-1266, 1973.
25. Forrester JS, Swan HJC: Acute myocardial infarction: A physiologic basis for therapy. Crit Care Med 2:283-293, 1974.
26. Sarin CL, Yalav E, Clement AJ, et al: The necessity for measurement of left atrial pressure after cardiac valve surgery. Thorax 25:185, 1970.
27. Dikshit K, Vyden J, Prakash R, et al: Extrarenal hemodynamic effects of furosemide in acute ventricular failure. Circ, Supp II, 44:50, 1971.
28. Gump FF: Physiological measurement and their interpretation. Med Clin N Ann 55:1141, 1971.
29. Ganz W, Donoso R, Marcus H, et al: A new technique for measurement of cardiac output by thermodilution in man. Amer J Cardiol 27:392-396, 1971.
30. Forrester JS, Ganz W, Diamond G, et al: Thermodilution cardiac output determination with a single flow directed catheter. Am Heart J 83:306-311, 1972.
31. Weisel R, Berger R, Hechtman H: Measurement of cardiac output by thermodilution. N Engl J Med 292:682-684, 1975.
32. Foote GA, Schabel SI, Hodges M: Pulmonary complications of the flow directed balloon-tipped catheter. N Engl J Med 290:927-931, 1974.
33. Golden MS, Pinder T, Anderson WT, et al: Fatal pulmonary hemorrhage complicating the use of flow directed balloon-tipped catheter in a patient receiving anticoagulant therapy. Amer J Cardiol 32:864-867, 1973
34. Lipp H, O'Donaghue K, Resnikov L: Intracardiac knotting of a flow directed balloon catheter. N Engl J Med 284:220, 1971.
35. Chun GMH, Ellested MH: Perforation of the pulmonary artery by a Swan-Ganz catheter. N Engl J Med 284:1041, 1971.

When and How to Use a Psychiatric Consultant

BERNARD V. STRAUSS, M.D.

ABSTRACT—An attempt to set down some guidelines to help physicians when they seek psychiatric consultations for their patients. The indications, timing, preparation of the patient, and the need for exchange of information between referring physician and psychiatrist are discussed.

Physicians have shown an increasing interest in the field of mental health. Their concern for this aspect of their patient's welfare is reflected in more frequent requests for psychiatric consultation. Many have expressed a need for some general guidelines to assist them in the care of their patients with mental and emotional problems.

They would like to know how to distinguish those patients for whom they should seek psychiatric consultation. They wonder about the appropriate timing for such recommendations and how this needs to be related to the patient's physical as well as his mental-emotional status. They have questions regarding the appropriate means and manner of informing and preparing patients for the meeting with the psychiatrist. They want to know what kind of available information concerning the patient and the family should be shared with the psychiatrist before the consultation in order to make it most fruitful.

These questions can be summarized as follows:

1. What are the indications for psychiatric consultation?
2. What is the appropriate timing?
3. How should you prepare the patient?
4. What information should you give to the psychiatrist before he sees your patient—in order to help him to help you?
5. What do you want from the consultation—is it a formal diagnosis, specific advice on medication, general recommendations for treatment or disposition, initiation and follow-up of such treatment as indicated, or simply a determination of the need for hospitalization?

Starting with the first question: There are a certain number of patients who will ask to see a psychiatrist. These pose no referral problem. Neither do those patients who are admitted to the general hospital after a suicidal gesture or a bonafide attempt at suicide. Cases of overt marked depression, individuals with obvious thought disorder, as evidenced by hallucinations or delusions, are also clear and evident candidates for psychiatric evaluation and care. This leaves a considerable number of people whose need may not be that obvious, though equally great. All too frequently the psychiatrist continues to be seen and used as a fireman who is summoned only in cases of emergency to put out a current fire. Or, he is called in only after all else is ruled out and the patient has been tested and procedured nigh unto exhaustion. In effect, he is told "we have tried everything and we can't find any basis for the patient's complaints. We give up. His trouble must be in your field." By this time the patient's fostered preoccupation with his symptoms has probably become fixated and the therapeutic task rendered considerably more difficult. Parenthetically, let me hasten to add that this is not to say that a reasonable effort to identify the nature of the illness by a thorough physical examination, indicated laboratory tests, procedures, and x-rays should not be made. The key word here is reasonable. What is inappropriate is the kind of relentless, single-minded pursuit that precludes consideration and recognition of the part played by the patient's mental and emotional state.

We need to learn to recognize those individuals who characteristically express their emotional troubles somatically—or whose reaction to their physical ills may actually overshadow them in importance and constitute the more significant illness. Primary physicians who know their patient's personal and family histories can often readily identify these individuals. Examples of the patients who tend to somatize include those with vague, ill-defined symptomatology which does not conform to any recognizable disease pattern. Sometimes this is quite apparent and takes the form of a bizarre constellation of symptoms. Or, one may encounter a clearly exaggerated form of somatic protest such as the complaint of excruciating pain or severe disability with little demonstrable physical basis to account for either. These are the more obvious of the patients who present with somatic symptoms; but whose troubles are predominantly of psychological nature. Not nearly so apparent, but often discernible when looked for, are the large numbers of individuals who speak what has been termed an organ jargon. Their disappointments and sometimes even their feared successes may be expressed by gastro-intestinal upsets, cardiac irregularities, blood pressure anomalies, and a host of other possible somatic expressions. Recognition of many of these psychophysiological disorders will be enhanced by prior awareness of their frequent occurrence. We

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are more likely to see what we look for. Empathic history-taking will generally elicit the kind of data you will need for a presumptive diagnosis. You then have to put the story together. Naturally not all such cases will require psychiatric consultation. Some will do well with psychotherapy by the family doctor. Psychiatric consultation is indicated where the patient does not respond to this or the usual medical measures. Again, I would caution against overdoing the diagnostic work-up. This is not innocuous. The patient's bodily concerns can become more marked and chronic as a result of the doctor's well-intentioned but overly prolonged investigative efforts.

More easily recognized as candidates for psychiatric consultation are those patients who over-react to their physical illnesses. The most common response of this type is depression; which may be of mild to severe degree. The latter often requires more than simple reassurance. A shattered body image often results in shattered self-esteem.

Other patients for whom psychiatric consultation may be indicated include the following:

Individuals who have suffered the loss of a loved one; and who prolong the grief reaction beyond the usual 3-6 month period. One wonders in such cases what use the patient is making of the grief; what is being avoided; who is being punished, etc. This situation requires expert help. Injudicious probing can be harmful.

Persons who talk too freely, too readily, too intimately; whose normal restraints are not working; whose censorship has broken down.

Those who manifest evanescent mood swings or a flattened effect.

People with manic excitement, grandiosity, expansiveness, tirelessness.

Patients whose verbal responses and behavior are manifestly inappropriate to their situation.

Individuals who exhibit impulsive acting-out; often to their own detriment.

Those with incapacitating obsessional rituals and compulsions.

Individuals with chronic, unremitting, unreasonable, exaggerated preoccupation with bodily illness; often to the exclusion of all other interests.

The acutely anxious, tense, and phobic individuals. And, certainly the accident-prone who are either actively self-destructive or inadequately self-protective. Among others, these include those involved in repeated automobile accidents and the frequently injured workmen in field or factory.

What we are talking about here is both the quality of the symptomatology and the extent to which it hampers the individual's functioning. We have noted a number of conditions calling for psychiatric consultation. There are certainly others we haven't mentioned. We have, however, tried to convey the kind of situation for which this is indicated.

The timing of the request for a psychiatric consultation will have an effect on its outcome. The patient's receptivity to the suggestion that he meet with the psychiatrist will vary with his situation at the time. In general, if the patient has presented with physical symptoms of any sort, it is advisable that all indicated diagnostic procedures be promptly performed. Upon completion of such studies, it is more likely that a recommendation by the physician for a psychiatric consultation will be accepted by the patient. Individuals who are not psychologically minded, those with somatic preoccupations, as well as those who are fearful of personal disclosures, and those who have an unconscious need to cling to their symptoms or who see the psychiatrist as a possible threat to their way of life—all have to be prepared for the recommendation. It should not be sprung on them. It can first be mentioned as something which may be considered after the test results are in. If the patient's initial reaction is favorable, proceed to arrange for the consultation. If, however, he is resistant, don't push the issue then and there. Give him a chance to think about it. Come back to it later and try again. Be guided by the patient's response.

Which leads to our next concern—how to prepare the patient. The attitude of the referring physician and its reflection in his manner of suggesting the psychiatric consultation will affect the patient's attitude and this in turn will help or hinder the consultation. A proper preparation is crucial for a maximally productive consultation. Above all, don't attack the patient with your suggestion that he needs a psychiatrist. Take the time to explain why you think it may be helpful. For patients with somatically expressed symptoms, talk about the interrelationship between emotions and body functions. Give some examples which you consider appropriate to the particular patient's symptoms. For example: for patients with vasomotor symptoms you might refer to the common expressions "getting hot under the collar," "livid with rage," "white as a sheet," etc. For patients with gastrointestinal symptoms you could use such phrases as, "it made me sick to my stomach," "my stomach turned over," or "I was so scared I lost control of my bowels." For other patients' expressions which may be suitable and help them to relate their emotional experiences and their somatic symptoms include "I got weak in the knees," "I froze in my tracks," "I got all choked up," "my heart was in my mouth," etc. Some patients will immediately understand and appreciate your recognition of their need. Others will be resistant and will require further explanation. Occasional patients may even consider the recommendation as an affront or an insult. You will have to be guided by the initial response to your tentative suggestion that a psychiatric consultation may be advisable. For the less sophisticated patient, don't over-explain. You'll only confuse him. Make your recommendation in a matter-of-fact way, just as you would any other medical recommendation. Above all, don't be apologetic about it. Such an attitude would only increase the patient's resistance. For most patients, it will be helpful to give them some idea of what to expect. You can tell them that the doctor will be interested in talking with them; that he will want to know about things that have been going on in their lives which may have affected their health and well-being; that his purpose is to be helpful; that he will not be critical; that he may be able to recommend some medication or other form of treatment to make them more comfortable or to assist them in dealing with their problems. Naturally, there can be no standard formula. Each individual should be treated in the manner you consider most suitable for him. Make no unreasonable promises. To do so will make the psychiatrist's task that much more difficult and will lead the patient to feel that you have misled him.

You can contribute much to a psychiatric consultation by talking with the consultant before he sees your patient. Tell him what prompted you to seek his help. Tell him what you know of the patient's relevant personal, social, past and present medical, and family histories, If you know of any likely precipitating factors, any problems in his relationship with family members, any adverse occupational experiences, share these with the psychiatrist. If you know any of your patient's noteworthy idiosyncrasies, unusual sexual habits, uncommon characteristics of any nature, tell your consultant about these. If a somatic problem has been suspected, tell of its history, the tests done, and the results thereof. All of this can be done in a relatively short time and can be very helpful.

In general, try to be clear in your own mind what you want and expect from the psychiatric consultation. Try to state clearly your purpose in seeking it. As is true in other branches of medicine, you will find that the psychiatric consultation will often be of great help, sometimes of moderate help, and, alas, occasionally of little help. Not only the competence of the consultant but the nature of the patient and the problem will inevitably affect the outcome. Keep your expectations reasonable. Avoid the occasional over or under-evaluation of the psychiatrist's powers and you won't go wrong.

If what you want is just to have the patient examined for purposes of commitment, discuss this with the psychiatrist and tell him why you feel this is indicated. In some instances, the psychiatrist may be able to clarify communication between you and your patient and therby enable you to help him more effectively. If what you want is a determination of the patient's need for mental hospitalization, keep in mind that where such a question arises, the patient is likely to require psychiatric care—whether in or outside the hospital. Tell the psychiatrist whether you want for him to make the recommendations for medication or other therapy directly to the patient or whether you want him to discuss his findings with you and to leave it to you to advise the patient. If you want an opinion regarding the part played in the patient's illness by psychological factors and what should be done about them, make that clear to your consultant and be sure you talk with him both before and after he has seen your patient. In that way, both you and your patient are likely to get the most out of the consultation. If all you want is a formal diagnosis for a report to an insurance company, or to an employer, or in relation to a legal situation; or, for compilation of statistical data, make that clear. Otherwise, a descriptive and explanatory sentence or paragraph will more appropriately and usefully describe your particular patient than a formal label. If you want the psychiatrist to conduct more than just a diagnostic interview, however dynamically oriented that may be, make sure you tell him your objective. Parenthetically, I should say that as a matter of fact, it would be very difficult to make a purely diagnostic examination. The psychiatrist's manner, his empathy, his attentive and uncritical listening all introduce a therapeutic aspect to the interview. It may be your purpose to get the patient to accept the need for psychotherapy and to be willing to act on the recommendation for it. If you want to know whether the patient is one whom you should continue to care for yourself and for whom you may be able to conduct appropriate psychotherapy, discuss this with the consultant. He will help to answer your questions and to advise you regarding the particular psychotherapeutic methods which may be suitable for your patient. By being alert and responsive to the nuances involved, you can make a significant contribution to the quality of the psychiatric consultations you call for and ultimately to the welfare of your patients.

New Britain General Hospital
v.
The Commission on Hospitals and Health Care

This is an abstract of Judge Alcorn's decision in the case of New Britain General Hospital v. The Commission on Hospitals and Health Care *written and distributed by The Connecticut Hospital Association.*

Judge Howard Alcorn's decision in the case of *New Britain General Hospital v. Commission on Hospitals and Health Care.* He found, in summary, "The actual procedure followed by the Commission (in its review of New Britain General Hospital's budget) was unconstitutional, illegal and arbitrary." In consequence, Judge Alcorn entered judgment sustaining the appeal brought by New Britain General Hospital, reversing the Commission's order which was appealed from, and permitting the hospital to operate until October 1, 1977 under the budget originally approved by the Board of Directors of that hospital and offered to the Commission on July 2, 1976.

Here are key findings in Judge Alcorn's decision:

The annual budget of the New Britain General Hospital is "carefully restricted by six months study and review by supervisory personnel knowledgeable of the needs which the demands on its service to the public require."

That the "Commission was hard pressed by the demands of the statute when confronted by the voluminous material submitted by thirty-five hospitals."

"There is no proof that the staff was instructed, in their study of the budgets, to give consideration to any of the factors enumerated in General Statutes §19-73k."

That the Commission in the spring of 1976, "chose as director of the Commission, contrary to the requirement in General Statutes §19-73f, a man who had no experience in the field of hospital administration."

"It appears that slight, if any, regard was given to the proposition 'that in all its proceedings the regulatory body must act strictly within its statutory authority, within constitutional limitations, and in a lawful manner.' "

That the criteria used by the Commission involved "bureaucratic lingo" and included such factors as "an arbitrary inflationary factor of six percent (which) would be applied based on the published consumer price index which, of course, is computed on a variety of activities unrelated to hospital operation. Weight would be given to the state-wide increase in the hourly wages of manufacturing and production workers which, of course, bears little relation to the employment rates demanded of trained hospital personnel. . . "

That with regard to the criteria "Its admitted purpose was principally to limit arbitrarily any increase in an individual hospital budget regardless of its need as tested by the statutory considerations enumerated in General Statutes §19-73k," and that "Moreover, the criteria adopted by the Commission were varied without notice to the Commission as the staff work progressed because the ad hoc committee considered that it had the authority to do so."

That prior to the adoption of the criteria, "There is no proof that either a member of the Commission or the Commission as a body, had examined the plaintiff's proposed budget, was aware of its contents, or had individually evaluated its suggested necessary expenses. . . "

That "One searches in vain for the application of an analysis of the individual needs of the plaintiff to meet the considerations listed in the statute §19-73k."

That "Quasi judicial duty such as that conferred on the Commission cannot be delegated. While the

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JUDGE HOWARD ALCORN is a former Judge of the Connecticut Supreme Court of Errors.

EDITOR'S NOTE: *Legal references are omitted. These can be obtained by writing The Connecticut Hospital Association, 10 Alexander Drive, Wallingford, CT 06492.*

work of subordinates may be considered by the body empowered to act, the culminating misfeasance in this case was the subsequent hearings of September 13 and 14, 1976, conducted by the Commission." (The famous 10-minute appeals hearings.)

That "The procedure by which the Commission presumed to perform its statutory duty to approve, reject or modify hospital budgets including the plaintiff's has been detailed at this length to illustrate its illegal, unconstitutional and arbitrary nature." and that "Hospital costs are extremely high, but if they are to be decreased the decrease must be accomplished by fair and legal methods."

That the requirements of a fair and open hearing is essential both to the legal validity of the administrative regulation and to the maintenance of public confidence in the value and soundness of governmental process.

That the illegal and arbitrary nature of the entire proceeding commenced "with the arbitrary purpose to limit all hospital budgets to an eight to ten percent increase," and that "Panel and Commission hearings on the plaintiff's appeal from the Commission's decision were held without reasonable notice and were not fair hearings."

And, finally, that "Taking all factors into consideration, the just result appears to be to allow the plaintiff to continue to operate as it has done for almost nine full months, and for the parties to face, without further hindrance, the determination of any 1978 budget request."

NO. 13 24 86-1
NEW BRITAIN GENERAL HOSPITAL
V.
COMMISSION ON HOSPITALS AND HEALTH CARE

COURT OF COMMON PLEAS
HARTFORD COUNTY
JUNE 21, 1977

Memorandum of Decision

The plaintiff is a private, non-profit general teaching hospital which pursuant to § 19-73o of the General Statutes is required to submit to the defendant Commission on Hospitals and Health Care, hereinafter called the Commission, its proposed operating and capital expenditure budget for its next fiscal year at least ninety days prior to the proposed adoption date of the plaintiff's budget. The plaintiff duly submitted to the Commission a proposed budget of $27,915,000 for its next fiscal year beginning on October 1, 1976. The Commission ordered the plaintiff to adopt a patient revenue budget in the amount of $25,743,504 and the plaintiff has appealed pursuant to General Statutes § 19-73p, claiming that the Commission's decision was arbitrary, capricious, based upon unlawful procedure, violated applicable statutes, and deprived the plaintiff of rights guaranteed by the Connecticut Constitution and the Constitution of the United States, claims which the Commission has denied. The action of the Commission has been stayed by court order pending the appeal which has been referred to the undersigned for trial. By agreement of the parties the issue to be heard was limited to the legality of the Commission's procedure.

Section 19-73k of the General Statutes, then in force, provided that the Commission in its deliberations under General Statutes § 19-73o "may take into consideration the necessary expenses of the institution or facility concerned, the effectiveness of its delivery of health care services, the quality of available health care, the duplication of service by institutions and facilities in the area served, the community or regional need for any particular function or service, and any other factors which the commission deems relevant."

The Commission, in 1975, had adopted published regulations applicable to hospitals, which defined the accepted category of rate charges, revenue, expense and current and budgeted fiscal years, (regulations 19-73a-48) and budget filing requirements, (regulations 19-73a-55, 19-73a-56). Section 19-73a-57 of the regulations provided that in reviewing proposed operating and capital expenditure hospital budgets the Commission "will follow the criteria of Section 19-73k G.S., to determine whether to approve, deny, modify, or issue any order concerning any budget or any rate or charge proposed by the applicant", and that in conducting hearings or administrative proceedings authorized by statute in connection with budgets, it would "follow chapter 54, G.S." Administrative rules and regulations are given the force and effect of law. . . . Chapter 54 of the General Statutes, which is the Uniform Administrative Procedure Act, provides in § 4-177 so far as now material that "(a) In a contested case, all parties shall be afforded an opportunity for hearing after reasonable notice; . . . (3) a reference to the particular sections of the statutes and regulations involved; (4) a short and plain statement of the matters asserted. If the agency or other party is unable to state the matters in detail at the time the notice is served, the initial notice may be limited to a statement of the issues involved. Thereafter upon application a more definite and detailed statement shall be furnished. (c) Opportunity shall be afforded all parties to respond and present evidence and argument on all issues involved. . . . (g) Findings of fact shall be based exclusively on the evidence and all matters officially noticed."

Section 4-178 of chapter 54 provides in material part "In contested cases: (1) Any oral or documentary evidence may be received . . . when a hearing will be expedited and the interests of the parties will not be prejudiced substantially, any part of the evidence may be received in written form . . . a party may conduct cross-examination required for a full and true disclosure of the facts. . . . notice may be taken of generally recognized technical or scientific facts within the agency's specialized knowledge. Parties shall be notified either before or during the hearing, or by reference in preliminary reports or otherwise, of the material noticed, including any staff memoranda or data, and they shall be afforded an opportunity to contest the material so noticed."

Section 4-179 of chapter 54 provides that "When in a contested case a majority of the officials of the agency who are to render the final decision have not heard the case or read the record, the decision, if adverse to a party to the proceedings other than the agency itself, shall not be made until a proposal for decision is served upon the parties, and an opportunity is afforded to each party adversely affected to file exceptions and present briefs and oral argument to the officials who are to render the decision. The proposal for decision shall contain a statement of the reasons therefor and of each issue of fact or law necessary to the proposed decision, prepared by the person who conducted the hearing or one who has read the record. The parties by written stipulation may waive compliance of this section."

The plaintiff is a private, non-profit, teaching hospital with an in-patient capacity of 436 beds. It is the seventh largest hospital in Connecticut with an activity of about 130,000 bed patient days and some 100,000 out-patient visits each year. Its patient revenue per bed ranks among the ten lowest of all the thirty-five private hospitals in the state. It employs from 1,300 to 1,500 skilled and unskilled persons and serves a population including surrounding towns of about 140,000 to 150,000 people. Its annual budget is carefully restricted by a six months study and review by supervisory personnel knowledgeable of the needs which the demands on its service to the public require. The proposed budget which it submitted to the Commission for approval underwent this scrutiny.

The General Assembly intended that, for a meaningful review of hospital budgets, the fifteen member Commission established by § 19-73c of the General Statutes should include persons having expertise in hospital management and health care. It requires that the membership include a hospital administrator, a nursing home administrator, a practicing licensed physician, a practicing registered nurse, the commissioner of health, the commissioner of mental health and the insurance commissioner or his designee, and by § 19-73f it directs the Commission to "appoint an executive director to serve at its pleasure, who shall be experienced in the field of hospital administration [who] shall, subject to the rules of the commission, administer and coordinate the functions of the commission and shall have overall supervisory authority and responsibility for its operations."

By the time limitations imposed by General Statutes § 19-73o, later referred to, the General Assembly has imposed an onerous burden on the Commission in performing its duty concerning hospital budgets. There are thirty-five private hospitals throughout the state, each with a fiscal year commencing annually on October 1. That the Commission was hard pressed by the demands of the statute when confronted by the voluminous material submitted by thirty-five hospitals including that of the plaintiff could be sensed at the hearing.

A several hundred page record of the proceedings before the Commission relating to the plaintiff's budget has been submitted, properly supplemented by extensive evidence offered at the trial by the plaintiff concerning matters which were not of record in order to assist the court in a determination of whether, in the actual procedure adopted by the Commission, it acted illegally or arbitrarily. The Commission offered no evidence beyond the procedures recorded. The pagination of the recorded procedures, embracing duplicated and indistinct page numbering and unnumbered pages, defies intelligible reference to the recorded proceedings. The issue to be resolved on all the evidence is whether the Commission acted illegally or arbitrarily and whether its conduct was in violation of the powers granted to it and the duties imposed upon it. *Conley* v. *Board of Education,* 143 Conn. 488, 492.

To meet the task confronting it the Commission employed a staff of some twenty-three persons about twelve of whom were substantially involved in reading the proposed budgets submitted. There is no proof that the staff were instructed, in their study of the budgets, to give consideration to any of the factors enumerated in General Statutes § 19-73k. On the contrary the staff work appears to have been concerned with classification, recording, synopsis and comparison of the data contained in the various proposed budgets under "criteria" hereafter referred to.

After the Commission had conferred with the representatives of the Connecticut Hospital Association and Blue Cross, an agreement had been reached upon a standard form of budget report to be used by each hospital. Based on these instructions the plaintiff filed a proposed operating and capital budget of some two hundred pages on July 2, 1976. The proposed operating budget set forth in minute detail the plaintiff's authorized budget for the prior year, its actual expense for that year and the proposed budget which it considered necessary to meet the demands which it faced in the forthcoming year, in each instance itemizing the expenditures for its several activities and the need for any proposed increase with supporting schedules. The proposed capital budget identified the claimed need for any capital expenditure, and the estimated cost thereof. The information thus furnished was supplemented by letters to the Commission's director on August 5 and 6 furnishing further information on subjects suggested by him or his deputy director. There is no proof that any individual commissioner or the Commission as a body ever studied the budget or other information which the plaintiff had submitted or analyzed it from the standpoint of the considerations set forth in General Statutes § 19-73k.

Dissatisfaction had been expressed by members of the Commission concerning their procedures in prior years. In the early spring of 1976 they chose as director of the Commission, contrary to the requirement in General Statutes § 19-73f, a man who had had no experience in the field of hospital administration. It was to him that the plaintiff's letters of August 5 and 6, 1976, above mentioned, had been written. At the director's recommendation a sub-committee of the Commission, called an "ad hoc budget committee," hereafter called the ad hoc committee, was appointed by the Chairman of the Commission without formal Commission action. Six members of the Commission comprised the ad hoc committee. The newly appointed director of the Commission with the aid of his deputy director prepared proposed "guidelines" for Commission use in acting on all hospital budgets. With the approval of the ad hoc committee it was suggested that the proposed "guidelines" be adopted as emergency regulations of the Commission. Without being generally publicized, copies of the proposed "guidelines" were sent by the director to the administrators of private hospitals around the state and comment concerning them was invited. The declared purpose of the proposed "guidelines" was to limit the increase in any hospital budget arbitrarily to an amount not exceeding eight to ten percent above the hospital's "adjusted base levels" for the previous year.

It appears that slight, if any, regard was given to the proposition "that in all its proceedings the regulatory body must act strictly within its statutory authority, within constitutional limitations, and in a lawful manner." . . .

"No administrative or regulatory body can modify, abridge or otherwise change the statutory provisions under which it acquires authority unless the statute specifically grants it that power. . . . "

A flood of objections to the adoption of the proposed "guidelines" was received from hospitals throughout the state. The plaintiff was among those who objected and in addition sought a public hearing on the proposed "guidelines." The Connecticut Hospital Association not only objected but also requested a hearing. No public hearing was granted, however, by the Commission. The ad hoc committee had approved the proposed "guidelines" "by consensus" without formal vote, but because of the strenuous and voluminous opposition which had been received that committee recommended to the Commission that the "guidelines" not be adopted as emergency regulations but instead that their substance be adopted as "criteria" to be used as a tool in the budget review in the current year. The reason asserted by the Commission for adopted "criteria" rather than emergency regulations was that "criteria" were more flexible and could be used as a "point of departure" whereas regulations must be strictly followed. The specific recommendation of the ad hoc committee to the Commission was "That the proposed criteria, as amended on this date, be used to develop staff memoranda and data concerning all budgets as a group and individually and that the product of such analysis, consistent with the provisions of § 4-178, G.S., be made part of the evidence to be weighed by each panel in each and every case before the Commission, and that each hospital be afforded full opportunity to present evidence in support of applications which vary from that developed in the staff memoranda and data." Upon this recommendation of the ad hoc committee the Commission, on August 10, 1976, adopted the proposed "criteria" which in major substance embodied the rejected emergency regulations. This formal action by the Commission marked the start of the activity which poses the question whether the Commission acted illegally or exceeded or abused its powers or acted arbitrarily. . . .

Over a month's time had intervened between this action of the Commission and the prior submission to the Commission of the plaintiff's proposed budget along with the many other budgets of private hospitals throughout the state. The plaintiff's proposed budget had been prepared in the form established by the Commission on the basis of the Commission's 1975 published regulations. On receipt of the proposed budgets the Commission's staff had commenced its assigned work on the many budgets. As a result of the August 10 action of the Commission, however, the "criteria" which had been adopted was put to use by the staff in preparing its report relating to the budgets which it would recommend for approval by the Commission. The thirteen pages of "criteria" phrased in bureaucratic lingo is difficult to summarize briefly. In general it would test the base costs of an individual hospital against those of all Connecticut private hospitals as a group in order to set an individual hospital's operating budget on the basis of a state wide norm. The capital budget was not affected. For volume increases, specified expenses would be considered fixed and all others would be considered to be 50% variable. Unit cost would be tested by the state wide hospital median cost. A unit cost test would be applied to non-volume increases in the budget. An arbitrary inflationary factor of six percent would be applied based on the published consumer price index which, of course, is computed on a variety of activities unrelated to hospital operation. Weight would be given to the state-wide increase in the hourly wages of manufacturing and production workers which, of course, bears little relation to the employment rates demanded of trained hospital personnel. An arbitrary and inaccurate thirty-five percent estimated increase in malpractice insurance premiums would be applied, and the financing of capital expenditures from gross patient income would be prohibited. Capital expenditures under $25,000 would be considered acceptable if limited to an expenditure not exceeding a rate of $700 per bed, but any capital expenditure over $25,000 must be deferred. Further attempted interpretation of the "criteria" is unimportant because its admitted purpose was principally to limit arbitrarily any increase in an individual hospital budget regardless of its need as tested by the statutory considerations enumerated in General Statutes § 19-73k. Moreover, the "criteria" adopted by the Commission were varied without notice to the Commission as the staff work progressed because the ad hoc committee considered that it had the authority to do so.

Following the adoption of the "criteria" by the Commission on August 10, 1976 copies were sent on August 11 to the administrators of hospitals including the plaintiff's. Included in this notice was the Commission's edict that all testimony of a hospital in support of a budget request must be pre-filed at least twenty-four hours before a hearing thereon. There is no proof that, upon receipt of notice of the adoption of the "criteria," the hospitals, including the plaintiff, were informed that the "criteria" were already being applied by the Commission's staff in reviewing budget requests.

Prior to the Commission's notice to hospital administrators of the adoption of the "criteria" there is no proof that either a member of the Commission or the Commission as a body, had examined the plaintiff's proposed budget, was aware of its contents, or had individually evaluated its suggested necessary expenses, the effectiveness of its delivery of health care services, the quality of available health care which it furnished, the duplication of service by institutions and facilities in the area which it served, or the community or regional need for any particular function or service. See General Statutes § 19-73k. Up to this time only the Commission's staff had acted on any budget.

Section 19-73o of the General Statutes provides in part that "The commission shall review such proposed budget and notify the facility or institution of its approval, denial or modification of such budget not later than forty-five days before such proposed adoption date. Failure of the commission so to notify the facility or institution shall be deemed approval of such budget. If the commission denies or modifies a budget, it shall hold a hearing within ten days of such denial or modification with representatives of the institution, to consider and evaluate such data and information as it considers relevant. Within fifteen days of the hearing, the commission shall recommend a budget for the institution which it deems to be reasonable under the circumstances. If the institution refuses to accept such budget recommendations, and agreement cannot be reached by the commission and the institution at least fifteen days before the proposed budget adoption date, the commission shall order the institution to adopt a budget which the commission deems acceptable for the coming fiscal period."

The Commission's staff had made a report concerning the plaintiff's budget listing, item by item, the plaintiff's actual prior year expense, its proposed budget request, the staff recommended budget with a summary of proposed expense reductions, a summation of unit patient costs, unit medical, surgical and drug costs of all Connecticut hospitals, working capital requirements, contractual allowances and comparisons of individual expense and other items with those of all hospitals in the state. While the report is voluminous and denotes extensive work by the staff, one searches in vain for the application of an analysis of the individual needs of the plaintiff to meet the considerations listed in the statute § 19-73k. No proof is offered concerning the composition or operational functioning of the staff, or whether the statutory considerations of § 19-73k were ever considered by it.

By virtue of General Statutes § 19-73o the Commission was faced with a deadline of August 16, 1976 for approval, denial or modification of any hospital's proposed budget, including that of the plaintiff. Accordingly, the ad hoc committee held concentrated meetings devoted to the staff report and recommended budgets on August 12, 13, 14 and 15, 1976. Not all members of the committee were present at all meetings and not all committee members who did attend were present for the entire duration of the meetings which they did attend. No minutes of these ad hoc committee meetings were kept and consequently there is no knowledge of the discussion which may have occurred concerning any budget. Several budgets were the subject of each meeting and only members of the ad hoc committee reviewed any budget in depth. There is no proof that the plaintiff's budget was ever reviewed by any commissioner but the unconfirmed assertion is that all ad hoc committee commissioners considered each budget. The ad hoc committee meetings concluded at midnight on October 15, with the ad hoc committee's recommendation that all proposed budgets, including the plaintiff's should be modified.

At 9 a.m. on the next morning, August 16, 1976, the ad hoc committee reported its recommendations to a meeting of the Commission. The majority of the members of the Commission had not participated in any budget review. Eleven members of the Commission were present. The report of the ad hoc committee was brief and included a listing of the thirty-five requested budgets, the thirty-five recommended budgets, and the amount of the modifications made in the thirty-five requested budgets, including the plaintiff's. The Commission meeting lasted for eleven minutes. The minutes of the meeting disclose no discussion by the Commission of any of the budgets. The "criteria" had been applied in fixing the amounts of the recommended budgets. On motion made, the thirty-five budgets recommended by the ad hoc committee were adopted by a Commission vote of nine to one, the hospital administrator member of the Commission voting "no." Four of the members of the ad hoc committee were among those who voted in favor of the adoption of the ad hoc committee's recommendation. Only the members of the ad hoc committee had reviewed any budget in depth.

The requirements of procedural due process apply to the deprivation of interests encompassed by the Fourteenth Amendment's protection of liberty and property. When protected interests are implicated, the right to some kind of prior hearing is paramount. *Board of Regents* v. *Roth,* 408 U.S. 564, 569. Consequently hearing panels consisting of three commissioners each were designated to hear the anticipated hospital appeals.

Following the meeting of the Commission on August 16, 1976 the plaintiff received notice on that same date that its budget had been modified with attached "source and application of funds data." The notice recited that if the hospital wished to contest the modification a hearing would be held at 8 a.m. on August 20, 1976, "notice of which has been previously issued to you." Strangely enough, the notice "previously issued" was a letter dated August 12, 1976, four days before the Commission had voted to accept the ad hoc committee's recommended modification of the plaintiff's budget and was therefore a notice of a hearing on a modification not yet made. The August 12 letter specified that "you are required to present all your basic testimony in written form, substantially complete except for cross-examination and such minor additions as the presiding officer is authorized to make at the time of the hearing." Added was the statement that cumulative evidence might be offered in written form.

In a hearing before an administrative board the guiding rule is that at the hearing no one may be deprived of the right to produce relevant evidence or to be fairly appraised of the facts upon which the board is asked to act.

The due process clause of the Constitution of the United States which has substantially the same meaning as article first, § 10 of the 1965 Connecticut Constitution does not guarantee any particular form of state procedure. Regard must be had, however, to the nature of the proceeding and the individual right affected by it.

The August 12 letter had contained no information concerning what issue the plaintiff's prefiled written evidence should meet. It was merely notice of a hearing on a modification of the plaintiff's budget. The August 16 notice was accompanied by seven pages of staff notes one of which listed pen and ink notations of the items of the plaintiff's authorized budget and six pages of typewritten figures relating to totals of various items relating to a large number of Connecticut hospitals. What then was the plaintiff supposed to meet by its prefiled written evidence?

The plaintiff immediately engaged in a studied effort to understand the basis of the Commission's action from the data in the August 16 notice. The time allowed between the receipt of the August 16 notice of modification and the August 20 date set for the hearing was inadequate to afford the plaintiff a hearing on reasonable notice to which it was entitled by virtue of General Statutes § 4-177 and, in particular, to present all its evidence "in written form, substantially complete."

Two of three commissioners designated as a hearing panel to hear the plaintiff's appeal were members of the ad hoc committee which had recommended the modification appealed from. The panel had imposed the requirement that the plaintiff's written testimony be filed twenty-four hours before the hearing, namely on August 19, 1976. In the three days between receipt of the notice of modification on August 16 and the required filing of all evidence in written form by August 19, the plaintiff used every effort to understand and respond to the material submitted with the August 16 notice of modification. The testimony which it managed to prepare was filed on August 19 as demanded. On August 20 the plaintiff appeared with several other hospitals which had been summoned for hearing on the same date.

At the start of the hearing plaintiff's counsel made formal objection that no reasonable notice of the hearing had been given to the plaintiff. He also remonstrated that, in addition to the material furnished to the plaintiff with the August 16 notice of modification, additional material had been submitted to it on August 18 which the plaintiff considered it necessary to meet with evidence which it was required to file in writing by August 19. Objection was also made that the plaintiff was only being allowed the period referred to within which to contest a decision reached by the Commission and its staff during a six-week period available to evaluate a budget which had been carefully prepared by a hospital staff concerned with costs and committed to the quality and availability of care. The chairman acknowledged the objections but ignored them and proceeded with the hearing. Several credible witnesses testified concerning matters which could reasonably have had important bearing on the accuracy and reasonableness of the Commission's decision if attention was paid to the considerations enumerated in General Statutes § 19-73k which the Commission's published regulations had undertaken to observe. The hearing of the appeals of all the several hospitals present on August 20, 1976 consumed some two hours.

Late filing of further exhibits was called for by the hearing panel and the hearing panel without further hearing formally concluded its consideration of the plaintiff's appeal on September 1, 1976. On September 10, 1976, again without further hearing, the decision of the hearing panel recommended to the Commission the approval of the budget previously recommended by the ad hoc committee to the Commission which had modified the plaintiff's requested budget. The described proceeding initiated by the Commission and held by the hearing panel violated the principles of due process and the dictates of General Statutes § 4-177.

The panel hearing having been held before less than a majority of the Commission who had heard the case or read the record but were responsible for rendering the final decision, no final Commission decision on the plaintiff's appeal could be rendered until a proposal for decision was served on the plaintiff and the plaintiff was afforded an opportunity to file exceptions and present briefs and oral arguments to the whole Commission. General Statutes § 4-179.

Quasi judicial duty such as that conferred on the Commission cannot be delegated. While the work of subordinates may be considered by the body empowered to act the culminating misfeasance in this case was the subsequent hearings of September 13 and 14, 1976 conducted by the Commission.

The hearing panel's proposal for final decision adverse to the plaintiff was accompanied by some nine pages of explanatory matter. At 7:30 p.m. on September 10, 1976 a representative of the plaintiff journeyed to the Commission's office to obtain a copy of the hearing panel's proposal and accompanying data. September 10 was a Friday and on that date the plaintiff received notice that a hearing would be held by the Commission on the following Monday, September 13, 1976, for final action on the proposal for decision. The plaintiff was thus allowed the intervening Saturday and Sunday in which to attempt to study and prepare a response to the hearing panel's proposal for decision and nine pages of explanatory matter. "Failure to give proper notice constitutes a jurisdictional defect. . . . Such a defect would result in lack of due process of law." *Hartford Electric Light Co.* v. *Water Resources Commission*, 162 Conn. 89, 109. "Adequate notice will enable parties having an interest to know what is projected and, thus, to have an opportunity to protest." idem, p. 110. The notice of the Commission hearing which was given to the plaintiff was a clear violation of the requirements of due process. See also General Statutes § 4-177.

Nevertheless the plaintiff appeared at the September 13, 1976 Commission hearing which had been called for 1:26 p.m. The plaintiff's appeal was reached at 6:55 p.m. after several other hospitals had been heard. Thirteen Commissioners were present, one of whom appeared at 1:52 p.m., one appeared at 2:37 p.m. and one appeared at 5:05 p.m. The hearing commenced with the Chairman of the Commission announcing that, as a result of panel hearings, a recommended increase of 10.4% over the last year's budget level was being recommended to the Commission. Members of the Commission were instructed by the chairman to ask no questions of any hospital representative. Each hospital was allowed ten minutes in which to present an oral summary of its argument after which the Commission would recess, consider the pre-filed testimony and at the conclusion of the recess would announce its decision concerning the appeals of the hospitals which had been heard. No provision was made for the filing of briefs as permitted by General Statutes § 4-179. The hospitals were heard in numerous groups, hearings of the several appeals being followed by recesses after which decision on the appeals which had been heard were announced. How much time during recesses was devoted to a discussion of any hospital appeal is not disclosed, but following each recess all budgets of the hospitals previously heard were modified. When the plaintiff came on for hearing it appeared that at about 4:20 on that very afternoon (September 13) the report from the hearing panel which had been submitted to the plaintiff with its notice of hearing three days before (September 10) was incomplete. A full page of data had been omitted. The missing page was furnished to the plaintiff. Counsel protested that in addition to the inadequate time allowed to meet the original report, no time had been allowed to meet the missing portion. The plaintiff was then allowed until the next day, September 14, to present its appeal.

The Commission meeting reconvened at 1:51 p.m. on September 14, twelve Commissioners being present. Hearings on September 14 consumed some five hours interspersed with some three hours of recesses. The procedure of September 13 was followed and several hospitals were again heard in groups followed by recesses and the announcement of decisions. Seven minutes was devoted to hearings on matters concerning the Hartford Hospital and the plaintiff's appeal, after which their budgets were modified after some amendments. The plaintiff's modified budget was approved by eight votes. The hospital administrator member of the Commission voted "Nay." Ten members of the Commission constitute a quorum. § 19-73c. Thereafter other appeals were heard, recesses declared and final action taken.

The procedure by which the Commission presumed to perform its statutory duty to approve, reject or modify hospital budgets including the plaintiff's has been detailed at this length to illustrate its legal, unconstitutional and arbitrary nature. Hospital costs are extremely high, but if they are to be decreased the decrease must be accomplished by fair and legal methods.

Our Supreme Court has quoted with approval from *Morgan* v. *United States,* stating in part "The vast expansion of this field of administrative regulation in response to the pressure of social needs is made possible under our system by adherence to the basic principles that the legislature shall appropriately determine the standards of administrative action and that in administrative proceedings of a quasi-judicial character the liberty and property of the citizen shall be protected by the rudimentary requirements of fair play. These demand 'a fair and open hearing'— essential alike to the legal validity of the administrative regulation and to the maintenance of public confidence in the value and soundness of this governmental process. Such a hearing has been described as an 'inexorable safeguard.' "

In an appeal from an administrative board the propriety of its decision may be attacked upon the ground that it was not legally warranted by the facts upon which the board acted as they appear in its records, or that the conclusion of the board was one which it could not reasonably reach upon the evidence before it and the matters properly to be considered, or upon the basis of a determination by the court of what the facts really were and the assumption that those were the ones upon which the board acted. Relief is called for when the Commission has acted illegally, arbitrarily, or in abuse of its discretion.

In summary, the actual procedure followed by the Commission was unconstitutional, illegal and arbitrary. Commencing with the arbitrary purpose to limit all hospital budgets to an eight to ten percent increase, its staff arrived, using the "criteria" adopted, at budgets which in turn met the approval of the ad hoc committee and the Commission as described. Panel and Commission hearings on the plaintiff's appeal from the Commission's decision were held without reasonable notice and were not fair hearings.

The remaining question is the form of a decree which is appropriate to the facts established and which will best promote equal justice to the parties. General Statutes § 19-73p permits the granting of "such relief as to equity may appertain." The Uniform Administrative Procedure Act, General Statutes, Chapter 54, § 4-183g permits a remand for further proceedings; or, if substantial rights of the appellant have been prejudiced because the administrative decision has violated constitutional or statutory provisions, has been made upon unlawful procedure, or is arbitrary or capricious, a reversal of the decision. For reasons already stated the Commission's decision must be reversed. What then is the relief which equity and justice demand? It is not the undersigned's function to determine the reasonableness of either the plaintiff's budget or the budget ordered by the Commission, nor could it be done on the evidence presented. Because of the stay order which was passed by the court on September 23, 1976 the plaintiff has been operating under its own proposed budget ever since October 1, 1976. On July 1, 1977 the Commission will be confronted with the review of another mass of proposed hospital budgets for the forthcoming fiscal year. To remand the plaintiff's 1977 proposed budget for further consideration by the Commission in the face of the imminent burden facing it in the review of the 1978 proposed budgets, including that of the plaintiff, would place an undue burden on both of the parties to this appeal. Taking all factors into consideration, the just result appears to be to allow the plaintiff to continue to operate as it has done for almost nine full months, and for the parties to face, without further hindrance, the determination of any 1978 budget request.

Enter judgment sustaining the plaintiff's appeal, reversing the Commission's order appealed from, and permitting the plaintiff to operate until October 1, 1977 under the budget which it proposed to the Commission on July 2, 1976.

Howard W. Alcorn
State Referee

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The Edelin Decision Revisited: A Survey of the Reactions of Connecticut's OB/GYNs

GLENN AFFLECK, PH.D. AND AGNES THOMAS

ABSTRACT—In the months following the manslaughter conviction of Dr. Kenneth Edelin for the death of an aborted fetus, 141 Connecticut OB/GYNs were interviewed to discover their perceptions of the impact of the Edelin case on the delivery of abortion services. A review of their reactions revealed that a slight plurality believed that abortion practices indeed would be affected. In particular, many predicted that mid- and late-trimester abortions would be reduced. Their comments were not confined to the immediate legal issue but reflected a depth of concern for the broader medical and ethical issues surrounding abortion. Although for most physicians the performance of early abortions appears to be an accepted practice, their responses indicated that mid- or late-trimester abortions continue to pose problems for them. Several physicians called for a more precise interpretation of the law, and for improved medical techniques. The question remains whether these changes would resolve those ethical concerns which emerged as a dominant theme in this study.

On February 15, 1975, Dr. Kenneth Edelin, Coordinator of Ambulatory Services at Boston City Hospital, was convicted in Massachusetts Superior Court of manslaughter in connection with an abortion he had performed on a 17-year-old patient.* Evidence produced in court indicated that after Dr. Edelin had attempted three unsuccessful saline infusions, he performed a hysterotomy. Conflicting testimony was presented regarding two major questions raised in court: 1) whether the fetus was alive at the time it was removed from the mother's uterus, or 2) whether Dr. Edelin had delayed its removal long enough to occasion the death of the "well-nourished, black, male fetus" observed in the pathology department morgue during the subsequent investigation of fetal research practices at Boston City Hospital.

Reactions by members of the medical community to Dr. Edelin's conviction were swift, and ranged from acerbic outrage[1, 2] to mild approbation.[3] Many believed the verdict would ultimately limit physicians' options to terminate mid- and late-trimester pregnancies and would also limit the use of aborted fetuses in neonatal intensive care research.[4] With respect to the former issue a spokesman for the Massachusetts Hospital Association confirmed that greater caution indeed will be exercised in the future, concerning abortions of fetuses over 20 weeks gestational age.[4]

In a broader context, the Edelin verdict has provided a rallying point for both proponents and opponents of abortion, rekindling vigorous debate over the ethics of abortion. Advocates of legalized abortion have voiced their concern that new restrictions might be placed on abortion practices, once again resulting in women being forced either to seek illegal abortions or to bear unwanted children. Opponents again have raised the moral question of fetal rights. It is obvious that the fact of legalization has not dissipated the strong emotional dispute over the medical, social and ethical issues surrounding abortion. Indeed, the Edelin decision itself may have exposed some fundamental problems in the interpre-

*As this article went to press, it was learned that the Massachusetts Supreme Court overturned Dr. Edelin's conviction on December 17, 1976. The higher court held that there was reasonable doubt that Dr. Edelin "wantonly and recklessly" caused the death of a "person who had been born alive outside the body of his or her mother."

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tation of the current legal status of abortion. As Fletcher observed in the wake of the decision, "(a)mong the issues remaining is whether the Court is to be understood to be defining abortion as the termination of a pregnancy in cases of pre-viable fetuses, or, as some believe, prevention of the live birth of unwanted progeny."[5]

At the time that the Edelin case was being heard in Boston, and was receiving national attention in the media, we were conducting a study of the attitudes of Connecticut obstetrician/gynecologists toward abortion. Accordingly, we were presented with a unique opportunity to gauge the reactions of a large sample of OB/GYNs to a legal decision with possible implications for the future practice of abortion. The purpose of this paper is to present a summary of the responses of 141 Connecticut physicians with specialties in obstetrics and gynecology, to the question: "Do you think the Edelin decision will affect the delivery of abortion services? If so, how?"

The Sample

Personal interviews of Connecticut OB/GYNs were conducted between March and October of 1975 by three interviewers.** All physicians registered in this specialty in Connecticut (except those who had been interviewed in an earlier pilot study)[6] were contacted and asked to participate in an interview concerning their attitudes and practices with respect to abortion. Out of a population of 249, 72 (28.9%) declined the interview.*** Thirty-six (14.5%) completed portions of the interview schedule by mail; and 141 (56.6%) participated in the personal interview. It is from the latter group that we gathered reactions to the Edelin decision and perceptions regarding its impact on future abortion practices.

Results and Discussion

There was apparent disagreement among our sample concerning the perceived impact of the Edelin decision on the delivery of abortion services. A slight plurality of 68 physicians (48.2%) believe that future abortion practices would indeed be affected by the case. However, 58 physicians (41.3%) predicted that no effects would be felt. Eight physicians were unable to decide, and six offered no response to the question.

The interviewers probed to discover the reasons behind these predictions. All open-ended remarks and comments were content-analyzed and assigned any of 25 applicable codes. Codable remarks from 95 physicians were analyzed. The frequencies of each of these codes are presented in Table 1.

An inspection of Table 1 reveals that the most frequent reactions reflected a belief that the Edelin decision would lead to greater reluctance by physicians to perform abortions. Some representative remarks in the category were as follows:

> "In borderline cases, physicians will have to be a bit more conservative."
>
> "M.D.'s will become shaky after the first trimester."
>
> "It will cause us to be very careful about the duration of the pregnancy, . . . maybe cause us to limit abortion to four months rather than five months."
>
> "The decision has already affected practice . . . it has made more difficult the performance of late trimester abortions (after 20 weeks) and has raised the question of the appropriateness of mid-trimester abortions."

Several physicians focused their attention on the likelihood of changes in the law regulating abortion, or modifications in hospital rules and guidelines. Five physicians explicitly stated that they and their colleagues probably would alter their practices because of the fear of prosecution or litigation. For example, one 29-year-old physician predicted that "young physicians asked to perform terminations of pregnancy will hesitage out of fear of litigation. The stimulus for increased litigation stems from lawyers who have their own selfish interests."

Many evaluated the Edelin decision in terms of its effects on specific practices. Among these were a predicted decrease in abortions by saline infusion or prostaglandins, and the encouragement of better techniques and greater accuracy in the estimation of gestational age. One physician surmised that "we will have to deal with the widespread cheating that goes on in the estimation of gestational age." Some viewed the decision as a stimulus for improving mechanisms of peer review and self-regulation within their specialty. Three physicians focused their comments on the impact the decision would have in terms of limiting fetal research.

Seven physicians believed that the Edelin decision would result in a growing emphasis on fetal rights and renewed efforts to preserve the lives of fetuses that survive an abortion attempt. Examples of this perception were as follows:

> "We will see increased strictness of treatment of viable fetuses."
>
> "It's going to make a strong case for the rights of the fetus, and more physicians will have to consider the rights to life of the fetus."
>
> "The decision will undoubtedly change our

**Agnes Thomas and Janet Bush, Research Assistants, and Gail Pratt, Instructor, in the Department of Psychiatry at the University of Connecticut Health Center conducted the interviews.

***Twenty-four percent cited opposition to abortion as their reason for refusal. Another twenty-four percent refused because of lack of interest in the study. Thirty-five percent declined because of lack of time and the remaining 17 percent offered a variety of reasons.

Table 1

PERCEPTIONS OF CONNECTICUT OB/GYNS REGARDING IMPACT OF EDELIN DECISION ON DELIVERY OF ABORTION SERVICES[a]

Code		*Freq.*	%[b]
01.	Increased reluctance to perform mid-trimester abortions.	13	13.6
02.	Increased reluctance to perform abortions after 20 weeks.	11	11.6
03.	Increased general caution about performing abortions.	17	17.9
04.	Abortion practice changes due to threat of prosecution.	5	5.2
05.	Improved self-regulation within the profession.	4	4.2
06.	Greater accuracy in estimation of gestational age.	5	5.2
07.	Improved techniques to estimate gestational age.	2	2.1
08.	Stricter hospital regulation of abortion.	4	4.2
09.	Changes in abortion laws.	4	4.2
10.	Decrease in abortions by saline infusion.	4	4.2
11.	Increase in efforts to preserve life of surviving fetus.	5	5.2
12.	Increased emphasis on fetal rights.	2	2.1
13.	Elimination of elective abortions after 12 weeks.	3	3.2
14.	Strengthen position of anti-abortion groups.	5	5.2
15.	Adverse effect on women's rights to abortion on demand.	5	5.2
16.	Strengthen position of pro-abortion groups.	2	2.1
17.	Effects will only be temporary	8	8.4
18.	Effects will be limited to the Boston area.	3	3.2
19.	Limited to hospitals where late abortions are performed.	5	5.2
20.	Limited to areas of high anti-abortion sentiment.	2	2.1
21.	Decision will be reversed.	4	4.2
22.	Limited to areas where D.A.'s press the issue.	1	1.1
23.	Edelin convicted only on a technicality.	1	1.1
24.	Edelin failed to follow the law.	2	2.1
25.	Fetal research will be limited.	3	3.2

a N = 95; Number of opinions coded = 120

b % = Frequency/N

> attitudes toward the treatment of an aborted fetus if it survives."
>
> "The decision throws into serious question the performance of elective abortions after 12 weeks."

Related comments concerned the extent to which women's rights to abortion on demand would be affected. Some believed that the decision would strengthen the position of anti-abortion groups, whereas others believed that the case would actually strengthen the determination of pro-abortion groups to retain the right to abortion on demand. Several physicians attributed the prosecution of Dr. Edelin to the activities of "pro-life" factions in the Boston area and expressed derogation of their role in the matter. As one physician bitterly remarked, "In the long run the case will go to the Supreme Court and get thrown out. It will be recognized for what it was—an attempt on the part of the anti-abortionists to make trouble."

It should be noted that many physicians in our sample regarded the impact of the decision as one limited in time or locale. These opinions included the following:

> "It will cause a temporary over-reaction at some hospitals."
>
> "It will not necessarily affect practice here in Connecticut, but only in Massachusetts and in other states where people are strongly opposed to abortion."
>
> "The effects will be felt only where district attorneys decide to press the issue."

Four physicians offered the prediction that the decision ultimately would be reversed; consequently, they believed its impact would decline over time.

Only a few physicians directed their comments to the specific evidence presented during Dr. Edelin's trial. One respondent remarked, "Abortion wasn't the issue. He allowed the baby to die." Another remarked, "Perhaps now people won't put bags over babies' heads and extract the placenta. In other words, what Edelin did hopefully won't be done again." Perhaps the most acerbic comment of all was the following: "He's done tremendous harm. I think he was a damned fool and should be in jail. I'd like to murder the guy because he gave fuel to the right-to-lifers. If I had been on the jury I'm not sure but what my decision would have been the same."

Comment

It is interesting to note that one of the major effects of the Edelin decision has been renewed discussion of the question of abortion, both within and outside the medical community. The irony of this phenomenon lies in the fact that the explicit legal issue of the case "had little to do with abortion, but rather with the killing of a male child after an abortion was performed."[4] Nearly half of the physicians in our sample believed that the decision would have some impact on the delivery of abortion services, largely in terms of reducing the numbers of mid- and late-trimester abortions. By and large their comments were not merely dispassionate predictions, but were reflections of deeply held personal beliefs regarding the ethics of abortion. Although it was not our objective to test the relationships between physicians' characteristics and their perceptions of the Edelin case, results from an earlier study of a randomly selected sample of OB/GYNs in Connecticut suggest that religion is a crucial factor in physicians' attitudes toward abortion.[6] Generally, it was found that personal attitudes toward abortion were strongly related to religious denomination and to frequency of attendance at religious services. In particular, Catholic physicians tended to be strongly opposed to abortion. Religion was cited as a moderate to major factor influencing attitudes toward abortion by 40% of the present study sample, and a minor factor by 10%. Presumably, religion and religiosity were related to the distribution of responses to our question on the impact of the Edelin case.

One important theme seems to emerge from the present investigation. It is apparent that abortions performed during the first trimester are accepted by most OB/GYNs. Early abortions do not appear to generate the medical, ethical and legal questions which seem to hover ominously over mid and late-trimester abortions. The latter tended to be invested with much greater importance by our sample of physicians, many of whom expressed repeated and thoughtful concern over the need to improve accuracy in estimation of gestational age, the need for explication of fetal rights and the need for greater precision in the law. Perhaps the resolution of the abortion dilemma ultimately will depend on the establishment of a point at which life begins, or at least a point of fetus viability. It is toward these elusive criteria that most arguments finally return. In line with this observation, Bok[7] has argued that the root of the current dilemma lies in the failure of the Supreme Court, in *Roe vs Wade,* to provide guidelines which stipulate a gestational age after which abortions should not be performed.

In conclusion, it may be that the legalization of abortion confirms Forrester's observation that even well-intentioned changes or reforms may produce dismaying results due to failure to recognize the potentially diverse reactions of individuals and groups to the issue in question.[8] The Edelin trial was one such result. Our analysis of the reactions to the verdict reached in this case suggests that the Supreme Court decision in *Roe vs Wade* did not effect closure of the legal and ethical debate over abortion. All that was required to demonstrate this was the appearance of a catalyst; clearly, the Edelin trial served this function.

REFERENCES

1. Ingelfinger FJ: The Edelin trial fiasco: *N Engl J Med* 292 (13): 697, 27 Mar 75
2. Gibbs RF: Commonwealth vs Edelin: *J Leg Med* 3 (3): 6, Mar 75
3. Jaynes RV: Letter: The Edelin decision: *J Leg Med* 3 (6): 8, Jun 75
4. Holzer JF: An analysis of the Edelin case: *Hosp Prog* 56 (4): 20-1, Apr 75
5. Fletcher J: Letter: Edelin editorial protested: *N Eng J Med* 292 (21): 1129, 22 May 75
6. Pratt GL, Koslowsky M, Wintrob RM: Connecticut physicians' attitudes toward abortion: *Am J Public Health* Vol 66 (3): 288-90, Mar 76
7. Bok S: The unwanted child: Caring for the fetus born alive after an abortion: *Hastings Cent Rep* Vol 6 (5): 10, 11, Oct 76
8. Schwartz H: Forrester's law: *Conn Med* Vol 39 (6): 367, June 75

The Healing of the Person

LISA H. NEWTON, PH.D.

We live in an age when "paternalism" is a dirty word and "autonomy" a sacred word, when rights are sacrosanct, and expertise and the authority that accompanies expertise, are suspect. Medical authority especially is suspect: because of its complicated vocabulary that sounds to the layman like deliberate obfuscation, because of the fabulous incomes that physicians are supposed to make, because of the profession's historic stereotype of arrogance, secrecy and high-handedness. It should come as no surprise, then, that the practicing physician finds himself dealing with increasingly assertive patients, questioning his judgment, suing for malpractice, championing "Patients Rights." But such assertiveness must be, at times, most frustrating for the physician: he is, after all, trained, like all professionals, to make judgments that others *cannot* make. If laymen could make good medical judgments, there would be no point to the extensive and comprehensive education given to the physician. Is there any point, he might sometimes wonder, to practicing any profession, especially medicine, when the patient insists on the "right" to impose his own untrained judgments, no matter what the physician says? Is there not a necessary opposition between a truly professional judgment and the "right" of the patient to choose his own treatment? To the extent that such opposition is apparent, mine is an argument of reconciliation. For it seems to me that professional decision in medical matters necessarily *includes* the enhancement of its possible opponent here, that "professional judgment" and "patient's rights" are merely names for two perspectives on the healing process. "The person," bearer of rights and subject of medical judgment, unifies them.

My argument follows a simple course: first, I consider the healing process, focusing on the person to be healed and the content of his "health;" second, I consider the notion of "right" in its relevant application, examining its relation to justice and the law; and the conclusion, that healing is a process of restoration of right, follows immediately. I make no claim to novelty in the argument; I will be satisfied if it is valid. There is merit, after all, in reminders of what we already know. The point of view adopted is that of an outsider to medicine; it deliberately takes on occasion, a stance at such a distance from medical practice as to suggest positive alienation. This stance should not be misinterpreted as hostility. It is part of my purpose in the argument to emphasize the real and terrible alienation of medicine's patient in order to emphasize the role of re-connection in his healing, and I sometimes find that identification with his disconnectedness helps to underline its importance.

I. The Professional's Judgment

The starting point for the discussion must be the subject of it. That subject is easily and intuitively understood, but more difficult to define: the "living embodied person," perhaps, or the "personal lived body," cannibalizations of Marjorie Grene's and Stuart Spicker's terminology respectively, may have to do as working approximations of definition.[1] The awkwardness of wording of the central term results from our culture's predisposition to mind-body dualism, that wretched bequest from Descartes. Thus "person" or "self" connotes "mind," "body" means physical organism only, and terms that refer to the unified human mind and body are not to be found. But the concept I am after is a monistic notion, that of the unselfconsciously healthy person, who experiences himself *as* his body, his body as himself, who

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lives and acts through his body, whose body is for the most part completely transparent to his consciousness. He does not notice, we might say, that he *has* a body, since noticer and body are identical.[2]

The aspect of the healthy person that interests us most, as it presents the best claim to definitiveness, is mastery, or control, of the behavior of the body. The healthy person decides to do something (some ordinary thing, like picking up a book) and does it; no independent element enters the situation from the direction of "body," his body, separately conceived. Control of the body is so complete, in health, as to be unconscious. Sickness then, or illness, presents itself primarily as loss of control. The body, usually transparent, suddenly becomes opaque. It takes on weight; where before the arm was weightless, reaching for the book it now is heavy, has weight of its own, which must be allowed for if the book is to be retrieved successfully.[3] (Again my debt to Stuart Spicker is obvious.) It does incomprehensible and useless things; it bleeds, or discolors, or swells, or erupts. Most urgently, it hurts; it becomes an enemy, causing pain and fear, threatening annihilation. In health, my body is identical with myself. In illness, my body separates itself and becomes an alien being with properties I have no control over: it becomes a heavy physical object, doing things I cannot understand, attacking me. My terror of this new and dangerous thing is rendered greater by contrast with my previous state of thoughtless confidence in my body.

Even before a physician enters the picture, the alienation extends beyond the frightful separation of self and physical body. The initial split in myself that I suffer in illness is almost always promptly compounded by the rupture of normal connections to the rest of my world; if I am ill, I lose my accustomed places at work and in my family, for I can no longer perform the functions associated with them. These additional losses of connection exacerbate the illness; they are entirely capable of causing illness and death on their own, as Eric Cassell points out.

> Our place in society, group identity, and our loved ones allow us to define ourselves. Without them we are nothing. What is important to recognize is that our very existence is defined by our relationships—our connection to life itself.[4]

The "disconnectedness, loss of the sense of omnipotence and omniscience, and loss of control"[5] suffered in illness then extend inevitably past my body to my whole environment, and it is primarily in search of restoration of my competent participation in that whole world that I seek medical help.

The task of the healer is conceptually simple: it is to restore the sick person to his previous condition of control and connectedness. He will ordinarily understand this task as one of discovering the disease that is causally responsible for the illness, and curing the disease, thereby removing the reason for the separation and allowing the person to reintegrate naturally. Presumably, once control of the body is restored, the remainder of the knitting up of life can be taken on by the patient. That understanding of the physician's task is certainly widely accepted as complete and correct, and needs no elaboration for many familiar illnesses (especially brief, nonserious, acute illnesses and injuries).

But we can hardly avoid being aware of the growing literature on the crucial point of this account, viz. the inference from "illness" to "disease." A thorough review of this literature, certainly justified by the quality of its discussions, would take us too far from our train of thought at this point. Suffice it to say that there is doubt about the conceptual relationship between "illness" and "disease,"[6] some doubt even about the empirical relationship between them,[7] resulting in an extremely perplexed relationship between "health" and either of the above. The point of the searching criticism to which that inference is being subjected is not, for my purposes, to discredit the germ theory of disease or suggest alternative inferences. It is merely a reminder that the point of the medical enterprise is not the "disease" or its "cure"; the point is the healing of the person. What walks into the doctor's office announcing that he is "ill" is not some organic disease in motion but a case of injured and diminished humanity that must be restored to rational control and integrity.[8]

The treatment of the physical organism, then, the cure of the disease, is always seen as a *part* of the healing process, as one means but not at all the only one, of making possible the reintegration of the autonomous living person. And the judgment of the professional healer is made with an eye toward all available means of restoring rational control and health.

Wherever possible, it would seem that the autonomous reason and judgment of the patient must be engaged in the procedures employed in his case, not as some "humanistic" duty outside of medicine but as a central feature of any medical treatment whatsoever. The exercise of autonomy, like any human capacity, is the best means to its own healing. The germ theory of disease does not suggest an alternative to this exercise; it plays an important role in it. For the physician's announcement that he has identified a disease, or diseased state, as causal agent of the illness gives the patient a name for the way he feels, a handle on his fear, a certain emotional distance from the pain and danger. As Cassell points out, the identification of the disease makes the illness "respectable," and this respectability is the first concrete contribution the healer makes toward the restoration of the patient's full humanity.[9] Prognosis of the condition, discussed and made comprehensible, restores predictability, an essential element of rationality, to the patient's life; advice and prescription, fully discussed and agreed upon, restore a measure of control. The professional, in this most ordinary scenario, has advanced the healing process well along the road toward recovery, or reintegration, before the actual "cure" of the disease is begun. Even if, as sometimes happens, the disease cannot be cured at all, his judgment to *that* effect plays the same important role in the restoration of the patient's competence to predict and control the life he has left to him.[10]

On this entirely nontechnical account, then, the professional's judgment is logically very simple. The person before him is ill: his body has inexplicably turned against him, separating itself from his control and establishing its own frightening ways. He asks the professional for healing, restoration of wholeness, the resubjection of his body to his reason. The professional's first job is to restore rational agency: to give the patient, as much as possible, a sense of restored control over the immediate environment of his body. He must confer respectability on the patient and a rational framework on his trouble by giving his illness some scientific berth, preferably a "disease" as cause, and enlisting his aid in the effort to deal with it. The heart of the problem is the patient's helplessness; the heart of the solution is restoring him to his proper place as master of his body; and the professional's extensive training equips him to know, as much as may be known, the means to that end.

II. The Patient's Right

The history of the Western notion of "right" or "rights" is tangled beyond analysis, indeed beyond belief, a characteristic it shares with most of our crucial social concepts. Fortunately for us all, the sense of "right" that I find most useful to this discussion is one of the simplest interpretations of the idea, stemming as it does directly from the earliest root notion of right and justice, before it had had time to get complicated. This root notion is *Moira,* the ancient (prephilosophical) Greek conception of Fate or Destiny. *Moira* was not a deity, but an abstract principle of just distribution, inherent in Nature and superior to all the gods. It was, according to Hesiod, by this pre-existent principle of justice that the gods received their *moirai,* or allotments of power, status, and privileged action; thus Zeus was assigned the Sky, Poseidon the Sea, Hades the Underworld. Within his domain, each god exercised full powers. Trespass in that domain, by other gods or by mortals, was bitterly resented and soon punished (*nemesis*); the action of every Greek tragedy is the commission, and the inevitable punishment, of such trespass.[11] A *moira,* then, was primarily a jurisdiction, an apportioned area of free choice and action for its holder. First, *moirai* were distributed among the gods; by extension, each individual human being has also his *moira,* his lot in life, assigned him by the Fates. This lot restricts him, to be sure—if he attempts to go beyond it, he violates Nature, *his* nature; he is guilty of *hubris,* arrogance, and may expect retaliation. But within it, he is guaranteed privileged status and freedom of action; whatever is his by Nature is his to control, and may not be invaded by any other man or god or anything else in Nature. It is his right, and violation of right is punishable injustice. This notion of right by Nature probably precedes in content, although in form it is consequent to, the notion of right by law, human law.

There is not much that belongs to a man by nature, and ultimately, as the philosophers pointed out, nothing at all does—in death he is stripped of everything. But until that final degradation, he can and does choose and act, and within his own jurisdiction he acts by right. As all action requires the use of his own body, his body is logically as well as physically the first and most necessary area of his right. His body above all is his property, his to dispose of and choose for, encroachment upon which is first and strongest cause for resentment and resistance.[12] Whatever interferes with his right, whatever limits his freedom of action with respect to his own body, commits the most serious injustice and is liable to the most severe retribution in his power.

Sickness, of course, is just such an invasion of right. *It* assumes control of the body, overriding its owner's choices on its conduct, arrogating to itself his allotted jurisdiction. Included, then, in the patient's alienation and distress is a profound sense of injustice, of having been wronged, deprived of property and rights.[13] This sense of injustice explains why he comes to the physician, not only fearful and pleading for wholeness, but also angry, and demanding instant restoration of what is his own. The healing process is therefore essentially bound up with right and justice; this involvement is inherent in it and cannot be eliminated.

Now, with this double orientation of healing in mind, we resume consideration of the physician-patient relationship. The unifying argument for judgment and right turns on Stuart Spicker's insight into the transformation, in this relationship, of the "lived" body into the alienated "physical" body of medical science, "the organized corpus of nosology":

> In sum, we *are* our lived body, the body which the physician *first* encounters when we enter the clinic. We may be said to *have* a single, physical body, the one to which we are reduced during the physical examination. . . . The patient's body is transformed from its lived bodily status to a cagastric body, a thing. . . . The patient's lived body is reduced to the

> weakened image of a physical body, not only by the physician but, paradoxically, by the patient as well. For the patient responds to the request of the physician to live in his or her body during the physical examination, as a body that he or she *has*, not as the body that they *are*. In this request by the physician and the corresponding compliance by the patients is contained the source of the moral relationship that obtains between them. The patient is asked to live in his or her body as thing, in order to attain medicine's end—health. This thing-body, even if only temporary, is as something merely possessed, an object, as thing with physical, anatomical, and physiological properties. The patient is asked to treat himself as a mere means during examination. What more can a person be asked to do that demands a giving over of self, freedom, integrity? In this tacit consent between physician and patient is contained the moral nature of the relationship, so often mentioned by others but all too often left in a generalized form as to be empty.[14]

What is most striking in these passages is the parallel between the effect of the physician's examination, as Spicker sees it, and the effect of the disease, as I sketched it above. The physician requests the patient to assume a certain psychological distance from his body, to view it as a thing; but as we have seen, if the patient is ill, this request will be easy enough to grant, for the illness has already accomplished the separation. The heart of the problem of sickness as I see it, setting aside the immediate problems of severe pain and threat to life, is the alienation of the body, its assumption of an independent existence as a physical thing, following laws peculiar to itself, defying its owner's will.[15] And in what Spicker calls the moral crux of the physician-patient relationship, the physician requests me to relinquish the body that I *am*, the body that is one with my will, and show him a body that I *have*, that follows *his* laws, the laws of "the organized corpus of nosology," a body that is no more than a temporary home for interesting diseases. I think this apparently paradoxical parallelism is occasionally matched in the unified perception of both by the distraught patient; both physician and sickness may seem to me to be agents of my alienation, snatching my body and my entire normal life from me with a casual and inexplicable cruelty, turning what was closest and most necessary to me into an object for their own incomprehensible ends. And perhaps the peculiar vigor of the "patient's rights" movement derives in some part from the extension of this parallelism into the course of treatment itself, into the aspect of "injustice" mentioned above. I want to put the point as strongly as possible for the sake of clarity, and qualify it for the sake of truth afterwards: The sickness, in making off with my lived body and leaving me with a hostile physical object in its stead, violates my first natural right. Insofar as the physician cooperates with that alienation of right, by attending to my physical body and ignoring me, he joins himself to that injustice. To the extent that he continues, in the course of treatment, to "treat me as a case, not as a person"—to carry on procedures I do not understand directed to conditions I am not aware of, to work on my physical body according to its laws and his without bringing me into his perspective—to that extent he is in league with the sickness, accomplice to its invasion of my rights; he becomes himself the attacker. They may seem to me as a team, sickness and physician, the one rendering me helpless so the other may practice his expensive science on me without my being able to get away. My resentment of them both may very well spill over, during the course of treatment and afterwards, into an attack on the only member of the team that I can get at, viz. the physician.

Clearly this account is exaggerated and false, if it claims to portray the typical perception of the physician by the patient. It cannot describe any significant number of physician-patient relationships for any significant length of time, or the whole enterprise of clinical medicine in our culture would collapse. The account must be qualified primarily by the assumed agreement of culturally derived understandings between professional and patient: I must know that the physician is in league with me against the sickness, not the other way around, or I would not consult him, and I can verify this alliance at any point during the course of treatment simply with a few minutes' conversation.[16] But the point of the account is made if it is understood as only hypothetical and partial. The alliance between physician and patient against the disease, and the patient's perception of the course of treatment as the act of that alliance, are *achieved,* not inevitable. The maintenance of that relationship, and that perception, requires effort and attention, primarily effort and attention on the part of the physician. The tendency of physicians not to talk to their patients, for instance, which some writers blame on laziness and Cassell blames on Hippocrates,[17] is a sure cause of the kind of alienation and hostility sketched above. Whenever my physician, like my sickness, ignores my reason's right to be consulted and to control, and simply acts, in silence, changing my body in ways I do not understand, he ranges himself with my attacker, the trespasser on my *moira,* and invites (I may unconsciously conclude) whatever retribution I can muster.

Elsewhere I have suggested that the resentment engendered by "paternalism" in medical practice, by the tendency (now decreasing) on the part of physicians and other health care personnel to bypass the patient's reason and will in the choice and administration of treatment, may well be the root of many of the current rash of medical malpractice suits.[18] That is not my point for this discussion. Here I am more interested in exploring that perspective on the healing process that sees it primarily as a restoration of right (the patient's right to his own body), that sees the physician primarily as the patient's ally in his efforts to recover this right, and the "Patients' Rights" movement, or orientation, as no more than a reminder of the proper object of these efforts and of the necessary limits within which they are made. Obviously I am not going to consider a malpractice suit if the physician, to my nonprofessional perception, "heals" me, makes me well and whole. But the most essential part of that perception of healing is not the physical restoration of the damaged organ or physiological process to normal functioning, the curing of the disease, on which I am not the least competent to judge; it is the restoration of my confidence in my body, my ability to predict and control its behavior and condition. Open discussion of every stage of the treatment is certainly an important, perhaps a necessary, means to this end, since the element of rational control on my part is present from the beginning of treatment to the completion of it; as a means, it is one of the most effective medicines in the healer's supply.

From this perspective the "Patient Advocate" recommended by George J. Annas and Joseph M. Healey, Jr.,[19] is the physician's natural ally, at least in the hospital setting for which his employment is proposed. The patient who consults a physician at his office, traveling from home or employment under his own steam and returning there after the consultation, still exercises a large degree of rational control in his life. But the hospitalized patient may be utterly lost, so torn from himself as to be unrecognizable to himself, unable to take any rational part *as* himself in the healing process.[20] The institutional setting that announces the end of his freedom of action may destroy his sense of responsibility also, obscuring from him not only his right to self-determination but also his obligation to be reasonable. The pain and danger of the disease itself certainly tend to impair rational behavior, disorientation that may result from necessary medication damages it further, and hospitalization, including the stripping of personal effects and all normal social roles, may produce a patient totally "dehumanized"—out of touch with his essential human nature, his autonomy. Healing cannot begin until this initial re-connection is made, until the patient is able to assume a rational stance vis-à-vis his physical condition and the attempts being made to improve it. The patient's "advocate" may be able to accomplish this crucial first step in healing. He acts as the patient's autonomous will, serving his reason in precisely the same way a crutch might serve an injured leg. To eliminate barriers to his free action on the patient's behalf, he should be, as Annas and Healey strongly recommend, hired by an outside agency and responsible to the patient (not the hospital). With such freedom of action he becomes, in effect, the very competent rational agent that the patient cannot summon up from within himself, the upright, fully clothed, rational agent capable of acquiring the information he needs for rational choice, defending his interests, entering into contracts, accepting the reasonable conditions of such contracts, and responsibly carrying them out. Surely such a patient would be more agreeable for any physician to work with than a querulous and disorganized lost soul helpless in the hospital setting; incidentally, for what it's worth, the legal quality of his consent to medical procedures will be vastly improved.[21] More to the point, a patient who has already begun to exercise a measure of rational control over his surroundings, even weakly and through the agency of an advocate, has already begun to heal.

As the agent and support of the patient's rationality, the "Patient Rights Advocate" seems to me to be the heart of the "Patient Rights" concept. The "rights" variously listed in the study cited seem to add nothing to the ordinary rights of man and citizen, protected in the Constitution and in the Common Law.[22] (They may serve to counter any claim that the patient *loses* his basic rights when he enters a hospital.) The patient's problem is not that he does not have enough rights; his problem is that in his condition, fearful, irrationally angry, bewildered, isolated and stripped of all external signs of his identity, he often cannot exercise them. He is effectually deprived of citizenship to that extent; this deprivation he reads as a deprivation of human status generally, and associates with the injustice of disablement. Here the advocate's role is crucial. In this legalistic society, connection to law and citizenship is the first and most important sign of connection of self-respect and personhood; the re-establishment of legal status in the hospital setting is essential both to the restoration of self-respect and to defusing the sense of injustice the patient brings to the treatment.

III. Conclusion

My argument here is a simple syllogism (or *sorites,* since it has several simple steps). Health is characterized by rational control over the body, the identification of body and person (sickness is its opposite); all healing of sickness is aimed at restoration of health; therefore all healing is aimed at restoration of rational control. Rational control over the body is also each person's first natural right; sickness is therefore also injustice, violation of right, and healing is restoration of right. The patient's right is therefore identical with the object of the healer's judgment, i.e. the full rational participation, and final authority of the patient in all matters having to do with his body. Q.E.D. The role of the patient advocate is therefore a healing role; by supporting the restoration of the patient's rational control in such matters, he aims at medicine's object, the health of the rational person.

REFERENCES

1. Marjorie Grene's paper, "The Embodied Person," was delivered at a Trans-disciplinary symposium on Philosophy and medicine, in the Spring of 1975, Univ of Conn Health Center, Farmington, Connecticut.
   Stuart Spicker's article, *"Terra Firma* and Infirma Species: From Medical Philosophical Anthropology to Philosophy of Medicine" appeared in *The Journal of Medicine and Philosophy* 1:104 (June 1976).
2. See Spicker, *op cit,* p 119
3. The role played by the force of gravity in human health and illness is central to Spicker's article, *op. cit.*
4. Cassell, Eric J, "The Organ's Disease, the Man's Illness and the Healer's Art", *The Hastings Center Report* 6:2:27, 35 (April 1976).
5. Cassell's terms, *loc cit*
6. See Christopher Boorse, "On the Distinction between Disease and Illness," *Philosophy and Public Affairs* 5:49 (Fall 1975), and Joseph Margolis, "The Concept of Disease," *The Journal of Medicine and Philosophy* 1:238 (September 1976.)
   H. Tristram Engelhardt, Jr. introduces a useful further distinction between "disease" and "disease states" in his "Ideology and Etiology," the commentary on Margolis *supra* that follows immediately in the same journal
7. I think this doubt, for some cases, can fairly be attributed to Cassell, *op cit;* and don't miss Ivan Illich, *Medical Nemesis* (New York: Random House, 1976).
8. Pellegrino, Edmund D. "Moral Agency and Professional Ethics: Some Notes on the Transformation of the Physician-Patient Encounter" in S.F. Spicker and H.T. Engelhardt Jr. (eds.) *Philosophical Medical Ethics: Its Nature and Significance* 213-220; p. 219. Dordrecht, Holland: D. Reidel, 1977.

   Irwin Lieb argues that we are much *too* "control" oriented, that the very categories of our philosophy presuppose the whole, healthy, competent, rational agent, hence deal very poorly with persons who are ill; their humanity is minimized. He is probably right, and that state of affairs explains still further why the patient needs so badly to regain the control; he seems to himself as, quite literally, an inferior sort of human being while he is unable to function at a "normal," healthy, level. Irwin C. Lieb. "The Image of Man in Medicine," *The Journal of Medicine and Philosophy* 1:162 (June 1976).
9. Cassell, *op cit,* p 28. Of course, identification of demons would do as well.
10. Especially in the case of the terminal illness, full and truthful discussion is required to restore moral status to the person. After all, the choices he makes now provide the last opportunities he will ever have to be rational.
    It should be noted, at some point in this discussion, that the conceptualization of "illness," "healing," and "health" presented here are very difficult to apply in cases of mental illness. The primary difficulty is in discovering the appropriate sense of "alienation," the form of separation between a responsible person and his injured, passive "mind" or self. Gravity provides no clue, as it does in physical illness. As it is difficult to determine when, and how, control has been lost, it is equally difficult to determine when it has been restored. See Christopher Boorse, *op cit,* pp 62 ff
11. For a particularly readable account of the working out of the notion of *Moira* in philosophy, I recommend F.M. Cornford, *From Religion to Philosophy: A Study in the Origins of Western Speculation* (New York: Harper and Row, 1957), especially the first chapter.
12. The notion that my body is paradigmatically my personal property seems to be at the origin of our current understanding of "property" in general. It is the foundation of the labor theory of property, also of the current disputes on (e.g.) abortion, where the "right to decide what shall happen in and to one's own body" plays a crucial part. On ownership of body and labor, see John Locke, *Second Treatise on Civil Government,* Section 27 ff. (In Peter Laslett's critical edition (New York: Cambridge UP, 1960), p 328-344).
    On the right to decide what shall happen in the body see (*inter alia*) Judith Jarvis Thomson "A Defense of Abortion," *Philosophy and Public Affairs* 1:46 (Fall 1971).
13. The phrase, and the insight into the power and immediacy of this fundamental human reaction, are Edmond Cahn's, see *The Sense of Injustice: an anthropocentric View of Law* (New York: NYUP, 1949)
14. Stuart Spicker, *op cit,* p 118, 119
15. We are reminded of St. Paul's despairing, "I see another law in my members, fighting against the law of my mind." *(Romans* 7:23).
    I don't think he was talking about the same thing, but I know how he feels.
16. The extreme account may be literally true as presented in cases where the common cultural background is missing and conversation is impossible. For example, one of the ways in which the United States Army in Vietnam tried to win the "hearts and minds" of the villagers, in the days of the Vietnamese War, was by providing dental treatment in all newly conquered villages. The villagers had, for the most part, never seen or heard of a dentist, and the smiling white giants who pulled out their teeth certainly appeared as hostile as their unsmiling white companions who hunted down Viet Cong sympathizers and shot them. Medical practice does not cross cultural boundaries without changing significance.
17. Because Hippocrates did not want to be confused with the sorcerers, who cured by incantation. Cassell, *op cit*
18. In my "Paternalism: The Limits of Justification" read at the APA Committee on Philosophy and Medicine Colloquium. (Western Division) New Orleans, April 29, 1976; also in "Three Ethical Dilemmas of the Malpractice Problem" read at the Symposium on "Malpractice: the Interaction of Medicine and Justice Through Public Policy," Norfolk, June 1976, published in the *Proceedings* of that symposium (ed. Donnie J Self, East Virginia Medical School—Old Dominion University. 1976). p 45
19. In "The Patient Rights Advocate: Redefining the Doctor-Patient Relationship in the Hospital Context," *Vanderbilt Law Review* 27:243 (1974)
20. See Erving Goffman, "On the Characteristics of Total Institutions" in Donald R Cressey, ed., *The Prison, Studies in Institutional Organization and Change* (New York: Holt, Rinehart & Winston Inc., 1961).
21. Joseph M. Healey, Jr. elsewhere suggests that the patient rights movement may provide the basis for a renewed physician-patient relationship, free of the misunderstandings that, through malpractice litigation, have wrought havoc on our health-care system, an adult relationship of cooperation, mutual respect and mutual responsibility. "Malpractice: The Patient's Viewpoint," read at the Malpractice Symposium mentioned above (supra n. 18). Self, *op cit* 35-41.
22. Three lists of suggested "patient rights" are presented in the article: the "Patient's Bill of Rights" promulgated by the American Hospital Association on January 8, 1973 (p 255 n 41); the weaker, vaguer Minnesota Bill of Rights, 1973 (p 264 n 60); and the authors' own Model Bill of Rights, more extensive and specific (p 266-268).

Preceptorships and Medical Education

(Second of Two Parts)

STEPHEN R. SMITH, M.D.

Believing that a well-structured preceptorship experience could and should be a valuable and integral part of the medical education process, the University of Connecticut Health Center through the Departments of Family Medicine and Community Medicine and Health Care sought to plan, develop, and operate a primary care preceptorship for medical students.

With a grant from the Department of Health, Education, and Welfare, Bureau of Health Manpower, efforts were made in 1974-75 to catalogue preceptorship opportunities for individual medical students with individual physicians in Connecticut. However, interest among the students was low. Therefore, a new program director was recruited who had had previous preceptorship design experience in the American Medical Student Association (AMSA) Foundation programs. New objectives and methodologies were designed, based on the successful AMSA model.

Student interest in the new program was quick in being generated and a pilot program was developed and operated in the summer of 1976. The following is a report of that pilot project.

Objectives

1. To introduce health science students to a community and to the cultural, economic, political and environmental determinants of health in that community.
2. To acquaint students with various aspects of their professional practice in a community and primary care setting, the content of the experience differing for each discipline, but pertaining to at least the following aspects.
   a. Common problems presented to the primary care professional in practice (e.g., common clinical problems for the primary care physician, dentist, public health nurse, community pharmacist).
   b. The role of the primary care provider in the ambulatory setting, particularly in terms of relationships with the other providers, consultants, and community resources.
   c. The role of each primary care provider in the personal health care system including health maintenance and prevention, early diagnosis of asymptomatic disease, diagnosis and treatment of symptomatic disease, and rehabilitation;
   d. The primary health care provider's personal lifestyle, including activities with his or her own family, in the hospital or other institutions, in local professional organizations, in the community, and in his or her own continuing education;
   e. In the management of the practice (e.g., private office neighborhood health center, community pharmacy, home health agency, etc.)
3. To provide students an opportunity to gain further clinical experience and skills in primary care consistent with the student's level of training.
4. To develop the students to become both professionally and administratively familiar with the institution at the placement site (e.g., private office, neighborhood health center, community pharmacy, home health agency, etc.) and how it relates to the existing delivery system in that area;
5. To allow the students to become familiar with other parts of the regional health care system, i.e., public health, private practices, rehabilitation centers, drug and alcohol detoxification centers, community mental health centers, etc.
6. To provide students with an understanding of the acute needs, challenges, and career advantages available in primary care in health underserved areas.
7. To provide students with an interdisciplinary experience in identifying factors affecting health with a family and community focus, and experience with problem-solving in this area as a health team based on their assessment of the total situation.
8. To establish an educational support system in order to ensure adequate academic support to preceptor-preceptee teams and provide access to the University Health Center for the community-based providers.
9. To monitor and evaluate the quality of the preceptorship in order to improve the learning experience for medical students.

STEPHEN R. SMITH, M.D., Assistant Professor, Department of Family Medicine and Director of the Division of Undergraduate Education and Community Development, University of Connecticut Health Center, Farmington, CT. Dr. Smith also serves as a member of the Public Health Council.

Organization

A Program Planning Committee composed of a program director, administrative assistant, faculty representatives from the Departments of Family Medicine, Community Medicine and General Dentistry, and community agency representatives assumed responsibility for directing the project. The Committee formulated the objectives, developed policies and plans, designed the participants' experience, recruited preceptors and students, supervised the preceptees, and evaluated the project.

Operation

Each student is assigned to a primary care physician preceptor. The student spends approximately two-fifths of the time during the seven week period with that preceptor. During this period, the student is involved in all aspects of a community-based primary care practice including all office activities, hospital rounds, nursing home visits, emergency room duty, continuing education activities, and so forth.

Students generally live in or near the communities in which they are placed. To defray these living expenses, students receive a stipend of $875 for the seven week period.

The community host agencies are responsible for designing and coordinating a community orientation for the students. This orientation introduces the students to the health care system in the community and analyzes the various determinants of health in that locale. The students spend approximately two-fifths of their time engaged in this activity which includes home visits with the Visiting Nurse Association, working with Homemakers and Home Health Aides, inspections with public health sanitarians, tours of occupational health units, talks with welfare officials, visits to alcohol and drug programs, orientations to senior citizen projects, speaking with Family Services staff, making hospital calls with the chaplain service, and other related activities.

The remainder of the student's time is spent on individual or group projects which includes working with health planning groups and studying selected families in depth.

Participants

Any medical student in good academic standing is eligible to participate in the program. The pilot project was purposely limited to seven students. Five were postfreshmen and two postsophomores. Preceptors were selected among volunteering primary care physicians. Most were from Eastern Connecticut, the area identified as being in greatest need for additional primary care physician manpower. Community host agencies were typically multiservice agencies which could provide or arrange for a wide variety of experiences for the students in that area. The physician preceptors who wish to continue to participate in the program are offered clinical faculty appointment. An effort is made to match the student with a community and preceptor most consonant with the student's interests and goals.

Orientation and Debriefing

A two-day orientation session precedes field placement for all the students. This is held at the Health Center. Participants include the students, faculty and community agency representatives. The purpose of the orientation session is to explain the nature of preceptorship training in general, the specific purpose of this program, the roles the students would play, and the staff's expectations. It was also hoped that the orientation would provide the students with a sense of group identity and allow them to ventilate their anxieties and concerns. Finally, the orientation allowed the staff to administer pretest assessment instruments to the students.

The debriefing was a two-day session which followed the work period. Its primary purpose was to allow the students to evaluate their experiences and secondarily to allow the students to refine their own perceptions of primary care and career goals. Posttest evaluation instruments were also administered at this time.

Supervision

During the summer, participants are visited by the project director or other staff faculty members. Students record each day's activities in a daily log and submit these weekly to the project director. These often focus the staff's attention to problem areas early enough in the program to allow intervention and modification.

Twice during the seven week period, all the students throughout the state gather for intraprogram conferences. These are held at some recreational area to combine both a social and educational milieu. Preceptors are invited to the second conference and experiences are shared.

Evaluation

The program was evaluated using several modalities by the students, preceptors and program staff. Students completed an evaluation form which rated the administration of the program and the attainment of program objectives on a scale from 1 to 7, with 1 being to no extent, not at all satisfied, to 7 being to a great extent, extremely well satisfied.

Assessment of program administration was rated highly overall, with the weakest area identified as being the explanation of application procedures, to the strongest being the value of the debriefing session in permitting student input into evaluation.

The students rated the program very high in achieving its stated objectives. Highest overall (mean value =

6.14) was the objective to acquaint students with the various aspects of a community primary care practice.

The only objective which was rated low (mean value = 3.43) was that of establishing an educational support system to increase access to the University Health Center for the community-based providers.

Associated with the evaluation of the project's success in achieving its objectives, additional procedures were developed to examine the nature of the students' experiences. An activity distribution table was prepared to reveal the diversity of the group's experience, and a frequency distribution graph was prepared to reveal the amount of the student time expended in certain areas. In addition, the program staff defined its *own* expectations of student activity and compared the expected activity to the observed activity of the students.

In reviewing the tables, there was remarkable agreement between the expected and observed values. Overall, the students had *more* activity in any given area than had been expected.

Student attitudes on primary care were compared before and after the summer experience and showed no significant changes. There was a strong preference for primary care specialties over nonprimary care specialties even before the program started with particular preference for family medicine.

Students placed greater importance on intrinsic factors such as expanding their knowledge in their field, variety of activities, etc., and lower importance on extrinsic factors such as income, ethnic characteristics of the community, and so forth.

The students preferred working in the private sector in partnership or groups to working in the government sector overall, but ranked specific government employment settings, such as the National Health Service Corps, government sponsored health programs, and the Public Health Service above a private solo practice.

Small towns and rural areas were strongly preferred by the students to large cities, both before and after.

A mixed income population was preferred by the students to any other with a wealthy community being the least preferred.

The Northeast, Rocky Mountains, and West Coast were preferred in that order over other parts of the country with the South being the least preferred.

Each preceptor evaluated the student placed with him or her in regard to specific abilities and overall. All the preceptors were highly complimentary about their students and were "very satisfied" or "extremely satisfied" with the student's performance as a preceptee. Each preceptor was personally interviewed by the program staff to receive further input into the evaluation of the project. All preceptors were anxious to continue to serve as preceptors and willing to act as host physician coordinators the following year.

Discussion

The pilot project of the preceptorship program was viewed as highly successful by all involved. The plans currently call for an expansion of the program to accommodate 40 students in the summer of 1977 to increase to 80 students by 1982. Students are selected from both Connecticut medical schools in a ratio proportional to the number of applicants from each school. About 15 per cent of the places are reserved for students from medical schools outside the state with preference given to Connecticut residents. These students are recruited through the Medical Education and Community Orientation Project, an AMSA Foundation program.

The preceptorship experience will remain an elective part of the curriculum although postsophomores at the University of Connecticut medical school may elect the preceptorship in place of the required introductory clerkship.

For medical education, the challenge of the future is to provide continued high quality training for a greater number of students at a reasonable cost with a strong emphasis on primary care and humanistic values inherent in the art of medicine. The preceptorship experience may be the model of decentralized medical education best capable of being integrated into the current centralized model.

To accomplish this goal will require increased effort to narrow the gap between the university faculty and the practicing community physicians. The gap is not one of quality or enthusiasm, rather it is one of communication. The students serve to bridge that gap. The challenge now is to further widen the bridge, involving the community physicians in an enlarging role as teachers and role models. The challenge shall be met.

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Commission on Hospitals and Health Care Task Force on Computerized Tomography

Interim Guidelines for Computerized Tomography State of Connecticut

The attached proposed guidelines, which are only meant to be interim, are submitted with three recommendations to guide the Commission in its future deliberations regarding CT scanning:

1. With the still evolving state of technology, planning and other considerations the CT interim guidelines must be subject to review and change within one year.
2. In order to improve the information on CT scanning, the guidelines require the applicants to maintain certain data and to provide semi-annual reports. A CT Task Force should meet semi-annually to consider and analyze these reports.
3. So that a more quantitive method can be applied to guide the CHHC in determination of the allocation and distribution of scanners, a mathematical model for projected utilization of CT scanning at a hospital should be developed. Such a model has been constructed and utilized in New Jersey; it would be helpful to test the model in Connecticut for a comparison with the New Jersey experience. This may be a major advantage in helping the Commission address numerous issues.

Introductory Remarks

Computerized tomography (CT) is so new and is changing so rapidly that its ultimate usefulness, need, and demand are still unknown. The large anticipated demand for CT studies, the expense of purchase and operation of the equipment, the need for technical and professional expertise, and interdependence with other sophisticated modalities require the presence of guidelines and restrictions in the purchase and placement of CT scanners.

Priority for approval should be given first to major institutions or professionals who can justify the need for CT scanning and who have the technical and professional staff and facilities to qualify as major referral treatment centers. Favorable consideration will be partly based on the establishment of a geographic network to provide ready access to CT scanning for patients throughout the state.

It is recognized that guidelines regarding the acquisition of CT units must be on an interim basis subject to review and comment at least annually for the next two years. Mere compliance with recommended criteria does not compel Commission approval of an individual application.

I. Need Determination Requirements

A. Neurological and neurosurgical services
Priority should be given to institutions* which function as major neurological and neurosurgical treatment centers and which possess the specialized facilities and technical and professional staff required to perform radioisotope brain scans, pneumoencephalograms, cerebral angiograms, and major intracranial surgery.

B. Appropriate annual volume of diagnostic and therapeutic procedures
A major neurological and neurosurgical treatment center is one whose neurologic and neurosurgical patient load is one of a magnitude roughly equivalent to 250 cerebral arteriograms and/or pneumoencephalograms and 50 intracranial operations per year.

II. Staffing Requirements

A. In the case of applications for CT scanning, priority will be given to institutions which satisfy the following staffing criteria:
   1. There should be at least six board-certified and/or board-eligible neurologists and neurosurgeons on the active medical staff.
   2. There should be at least one full time equivalent neuroradiologist. A neuroradiologist is defined as one who is a member of the American Society of Neuroradiologists, or is a neuroradiologist (or other physician) who has attained special competence in radiology. Such competence may be demonstrated by additional training and/or extensive practice in neuroradiology. Experience should include angiography, myelography, pneumoencephalography, and training in computerized tomography. Documentation of training and experience should be presented.
   3. There should be at least one board-certified nuclear medicine specialist.

**Applications from groups of professionals who meet the same staffing requirements and who have immediate access for patients to a major hospital which has the diagnostic and therapeutic capabilities referred to herein will also receive consideration for approval.*

4. There should be access to one physicist, engineer, or biomedical engineer.
5 The pathology service should have access to a person with special competence in neuropathology.

B. The applicant should submit the names, training, board status, and the percentage of time devoted to speciality practice of the above specialities. The applicant should also name the individuals who will interpret CT scans and the percentage of their time that is to be devoted to CT scanning. It should also be stated what percentage of time (that the unit is operating) that a neuroradiologist will be specifically located within the CT area.

C. Institutions desiring to do computerized body tomography scanning, in addition to the foregoing, should demonstrate an ultrasound capacity.

D. The applicant should provide evidence that there is a 24 hour on-call availability of the technical and professional staffs in neurology, neurosurgery, neuroradiology, and anesthesiology.

III. Standard of Use

A. Priority should be given to applicants who provide access to 24 hour emergency service for both inpatients and outpatients.

B. Since some patients will require immediate treatment following CT, the applicant should provide or have immediate access to 24 hour operating room coverage including on-duty staffs of nursing, anesthesia, and operating room personnel. Post-operative care, including an intensive care unit and/or recovery rooms must also be provided on a 24 hour basis.

C. Applicants should agree that emergency cases should have first priority, and that this priority should extend to emergency cases independent of referral source or financial status. The applicant should provide written procedures by which the institution will certify and deal with such emergencies.

D. The applicant should agree to develop appropriate neurological protocols and primary screening techniques before CT scanning will be ordered.

E. The applicant should agree to develop an ongoing peer review of the activities of its computerized tomography unit. Such review process should deal with questions of technical quality and with the appropriate use of computerized tomography, e.g., the recognition and prevention of unnecessary or extended hospitalization. The applicant should indicate the mechanism of the expected peer review in the application for Certificate of Need. Peer review proceedings should be conducted on a formal basis.

F. Applicants should be willing to commit their computerized tomography units to a minimum schedule of sixty hours a week if the need warrants.

IV. Data

A. Applications should include the number of diagnostic cerebral examinations and intracranial operations performed by the applicant for each of the three years preceding the application.

B. The applicant should agree to maintain certain data, as indicated in these guidelines, and to periodically provide approximate summary reports. (The format for these reports follows the Appendix.)

C. Applicants who receive approval for CT should supply the Commission with yearly reports detailing the number and type of studies performed, the actual hours of scheduled and emergency CT operations, the numbers of positive versus negative studies, and the number of inpatients and outpatients treated.

D. Applicants shall include, in their application for Certificate of Need, estimates of the number of patients without either self-pay or third party capability to be served, as well as a financial plan to provide for them.

E. Applicant shall provide the Commission on a timely basis with such financial information as necessary for ongoing evaluation. These reports should also include the purchase, operating, and repair costs of the scanner, the charge per scan, and institution's annual income from the machine.

F. Applicants should be required to make representation as to the financial feasibility of a firm order for the equipment within six months of the time of Commission approval.

G. The Commission on Hospitals and Health Care reserves the right to request additional documentation of information already given.

V. Geographic Distribution and Regional Cooperation

A. Priority will in part be based on the establishmeant of CT scanner distribution to enable patients throughout the State to have reasonable access to CT and to provide services to patients whose physicians are not associated with hospitals providing CT. Priority will be given to applications which already demonstrate steps toward implementation of these guidelines.

1. The applicant shall define, in writing, its procedure for providing access to computerized tomography services, indicating specifically appointment mechanisms for inpatients and outpatients; for patients associated with the sponsoring institution and for patients not associated with the institution; and for routine cases and for emergencies.
2. The applicant shall present, in writing, its commitment to serve residents of the community and the basis for assigning priority in scheduling patients for computerized tomography. Such priority must not discriminate on the basis of the institutional affiliation of the patient's physician. Written letters of intent between the host hospital and hospitals sharing the unit must be presented.
3. Distribution of these statements of policy and procedure as described in #1 and #2 above must be made to all hospitals, ambulatory care institutions in the region, to the County Medical Society, and to the Health Systems Agency within three months of receiving certification.
4. The applicant shall agree to provide reports on the status of regional cooperation to the CHHC and HSA on a semi-annual basis, including the relevant data as will be designated.

B. During the near future, there should be a geographic preference to applicants who otherwise meet these guidelines to provide a unit in Health Service III. In the following year, preference should be given to provision of CT service in Health Section V.

C. In certain cases, approval for a second CT scanner should be granted to an institution in preference to a less well qualified institution applying for its first unit. Second unit approval should be limited to major referral centers which have demonstrated full utilization of the first unit as well as a high level of clinical demand exceeding the capacity of the first unit. This approach should: (a) Insure efficient use of space and technical, clerical, and professional personnel who have been committed to CT; (b) Diminish the effect of "downtime" on the care of critically ill patients since at least one unit should be operating at all times.

VI. Provisions for Adequate Access to Ambulatory CT

A. Hospitals should be prepared to provide the maximum use of the scanner on an ambulatory basis except on those occasions where the health of the patient requires hospitalization. Hospital utilization committees should review scanner use to ensure there are not inappropriate admissions solely for the purpose of utilization of the scanner. The applicant should indicate in writing how it proposes to achieve this item.

B. The applicant shall provide the CHHC with such reports and information necessary to assess compliance.

C. In view of the major commitment requested of hospitals sponsoring computerized tomography, it is recommended that, at present, applicants other than active hospitals (See item 1) be assigned very low priority. Should there be any non-hospital based unit applications, they would have to meet the same guidelines requirements as hospital based providers.

Body Scanning

The usefulness and needs of CT body scanning are less well established than for head scanning. At least initially, applications of CT units to be used totally or predominantly for body scanning should be approved only for major teaching centers. Applicants should state the expected proportion of head and body use for at least the first year of operation. It is expected that applications should only be approved for institutions capable and willing to contribute to the state of the art regarding body scanning.

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Methionine	12 mg.
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Inositol	10 mg.
Calcium Pantothenate	2.5 mg.
Pyridoxine	0.25 mg.
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Emergency Care and Evaluation of the Alcohol Patient

(First of Two Parts)

J. KEVIN KINSELLA, ED.D., M.P.H. AND ARTHUR AFRICANO, M.D.

Introduction

On June 1, 1976, Public Act 76-300,[1] "An Act Adopting An Alcoholism and Intoxication Treatment Act," went into effect in Connecticut. Modeled after the Federal Uniform Act,[2] this legislation further elucidates the disease concept of alcoholism and in doing so shifts responsibility from the criminal justice system to the health care system. In particular, public intoxication, which in the past had been under the jurisdiction of the police and courts, has become a new and controversial issue for institutions involved in the delivery of health care.

Under the Statutes of this Act, individuals with alcohol-related problems can voluntarily enter or be brought, in the protective custody of the police, to a "licensed treatment facility." Institutions so defined by the Act are acute general care hospitals, psychiatric hospitals and specialized centers licensed by the Department of Mental Health to operate as alcohol acute care and evaluation facilities. With the exception of a few large urban areas which have these specialized facilities, emergency rooms of acute general care hospitals are becoming the focal point for most health care activity involved in the initial care and management of individuals with alcohol problems.

This situation creates numerous practical problems for hospital emergency room staff who are required by law not to discriminate against individuals because of their disease of alcoholism.[3] It is the purpose of this paper to outline a methodology for approaching the various issues involved in the emergency care and evaluation of the alcohol patient.

A Model for Evaluation and Initial Care

In the following sections a systematic and pragmatic approach to the evaluation and care of the alcohol patient is presented. The described model is not intended to be comprehensive or all emcompassing, rather, it is designed to provide the physician and health care team with a frame of reference for use in clinical practice.

I. Entry

Patients with alcohol-related problems enter the emergency room in one of three ways: (a) *Emergency cases*—individuals who are involved in auto accidents or home accidents, such as burns, falls, etc.; (b) *Voluntary*—Individuals who come of their own volition or at the advice of significant others to receive treatment for intoxication or incapacitation and related medical conditions; and (c) *Police*—Individuals who are brought to the emergency room by the police at their own request because of intoxication and related medical problems, or individuals who are brought to the emergency room in protective custody because of their state of incapacitation.

An understanding of the method of arrival is important and vital to proper triage and evaluation. In the categories presented above, items (b) and (c) may present new situations in certain communities where alcohol problems had been the sole responsibility of the criminal justice system.

II. Evaluation and Triage

A. *Definition*—The evaluation and triage process is of paramount importance in systems which attempt to provide a continuum of care for the patient with an alcohol-related problem. In this evaluation phase the most varied and complex kinds of diagnostic-therapeutic expertise need to be coordinated and focused on the presenting patient. The process does not always occur in orderly sequential steps, but exists rather as a period-in-time in which a number of events (intake demography, history taking, assessment of trauma and level of consciousness, etc.) take place concurrently. While the order of events may differ from patient to patient depending upon variables such as methods of arrival, available resources, etc., it is vital that the medical condition of the patient take precedence over other issues in the determination of urgency of care.

Prompt and accurate decisions have to be made at this point regarding initial medical-surgical-psychiatric assessment and treatment, priority of treatment needs, ongoing management and observation, initiation of alcoholism treatment, and disposition and referral.

B. *Initial Assessment*—As in standard emergency room medical practice, triage of the alcohol patient initially gives priority to the nature and severity of the individual's presenting condition. An evaluation of the patient's level of consciousness, rationality and physiologic ability to maintain vital life functions should be routine practice. The degree of alcohol intoxication is only one of the important factors which determines the clinical status of the patient in the emergency room setting. Other relevant factors which require consideration include: the concomitant use of

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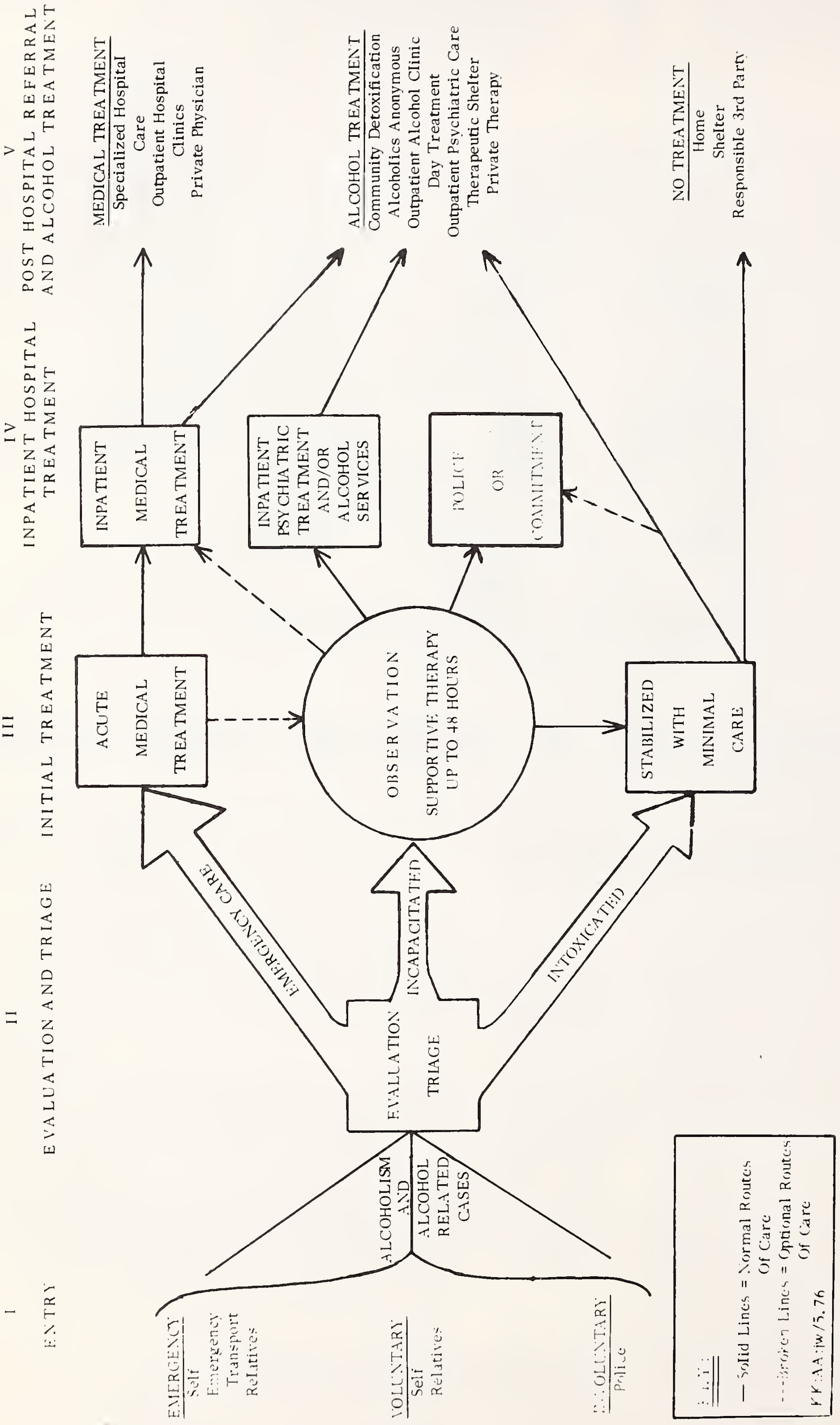
I ENTRY
II EVALUATION AND TRIAGE
III INITIAL TREATMENT
IV INPATIENT HOSPITAL TREATMENT
V POST HOSPITAL REFERRAL AND ALCOHOL TREATMENT
EMERGENCY
Self
Emergency Transport
Relatives
VOLUNTARY
Self
Relatives
INVOLUNTARY
Police
ALCOHOLISM AND ALCOHOL RELATED CASES
EVALUATION
TRIAGE
EMERGENCY CARE
INCAPACITATED
INTOXICATED
ACUTE MEDICAL TREATMENT
OBSERVATION
SUPPORTIVE THERAPY UP TO 48 HOURS
STABILIZED WITH MINIMAL CARE
INPATIENT MEDICAL TREATMENT
INPATIENT PSYCHIATRIC TREATMENT AND/OR ALCOHOL SERVICES
POLICE OR COMMITMENT
MEDICAL TREATMENT
Specialized Hospital Care
Outpatient Hospital Clinics
Private Physician
ALCOHOL TREATMENT
Community Detoxification
Alcoholics Anonymous
Outpatient Alcohol Clinic
Day Treatment
Outpatient Psychiatric Care
Therapeutic Shelter
Private Therapy
NO TREATMENT
Home
Shelter
Responsible 3rd Party
— Solid Lines = Normal Routes Of Care
--- Broken Lines = Optional Routes Of Care
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Figure 1
Care and Evaluation of the Alcohol Patient

drugs, especially other central nervous system (CNS) depressants (sedative hypnotics, minor tranquilizers and opiates), evidence of the withdrawal syndrome, trauma, medical complications, and an idiosyncratic response to alcohol.

Based upon the presenting condition of the patient and initial assessment by the ER team, the patient should fall into one of three treatment/clinical management categories: (a) *Emergency Care*—Treatment is required immediately for one or more of the following conditions: severe alcohol intoxication (coma), severe alcohol withdrawal (agitation, convulsions, delirium tremens, etc), serious medical complications, serious trauma, and idiosyncratic response to alcohol. Inpatient care is necessary and essential for all these conditions to insure judicious medical care and the clinical decision to admit to the hospital in these cases should be non-problematic. However, patients who do not present with an emergency condition should be categorized as incapacitated or intoxicated for purposes of further evaluation and care; (b) *Incapacitated*—"A condition in which a person as a result of the use of alcohol is unconscious, or has his judgment otherwise so impaired that he is incapable of realizing and making a rational decision with respect to his need for treatment";[4] (c) *Intoxicated*—"A condition in which a person whose mental or physical functioning is substantially impaired as a result of the use of alcohol."[5]

These definitions of state are not more specific because it was the intent of the legislation that the judgment should be based on a clinical decision made by a physician with the assistance of other health professionals. Strict legislative definition in the area of clinical affairs has in the past led to situations where professional judgment becomes "locked in" and, in many instances, patients are inappropriately categorized because of predetermined limits and mandated evaluation methods such as blood alcohol or drug levels.

Since these determinations of alcohol state are clinical decisions, based on several factors, the following indices are suggested as a guide for the physician in assessing the degree of CNS dysfunction and related conditions:

1. *History*—Pattern and volume of recent and past drinking, including date and time of cessation; concurrent drug usage (specifically sedative-hypnotics), blackouts, delirium tremens, convulsions, recent accidents or injuries, medical illnesses; information from family or "significant others"; review records of previous hospital admissions.
2. *Presenting appearance*—Evaluation of mental state and psychomotor functioning which includes: level of consciousness, relevancy and coherency of thought and speech, orientation, gait and coordination; note evidence of emotional lability, hallucinations, delusions, or illusions, and atypical behavior.
3. *Physical examination*—To include: vital signs, evidence of trauma or infection; bleeding externally or internally; hepatic examination, jaundice, and/or evidence of portal hypertension; cutaneous stigmata (burns, ecchymosis, vascular patterns, frostbite, etc.); positive neurological findings (nystagmus, reflex changes, cerebellar degeneration, amblyopia, etc.).
4. *Lab tests*—To include: blood alcohol (BAL): drug screen; liver function tests; blood glucose; complete blood count (CBC); urinalysis; chest and skull x-rays, etc., as indicated by initial history and physical findings.
5. *Method of arrival*—If the patient arrives in the protective custody of the police, the decision of incapacitation has been determined in the field by the officer. If the patient requested the police officer to assist him to the hospital, then the patient should be evaluated as a voluntary patient. In actuality, few patients arrive in the emergency room unaccompanied or on a voluntary basis. Most are "volunteered" by relatives or assisted by companions (who also may have been drinking) for treatment of minor medical problems.
6. *Volunteers*—AA volunteers and alcohol workers from local alcohol councils who are familiar with the behaviors associated with excessive drinking (and even with the individual alcohol patients themselves) may be more successful than medical staff in eliciting information helpful to proper diagnosis and treatment.

Given the statutory definitions and the suggested guidelines for assessment, a more pragmatic approach to clinical differentiation would be the following: *Incapacitation*—mental or physical function so impaired that the patient is unconscious or not rational enough to make decisions regarding his own need for proper care; *Intoxication*—alcohol stupor with some impairment of function but the patient is able to exert reasonable control over his own behavior.

III. Initial Treatment

A. *Acute Treatment*—Prompt and accurate diagnosis followed by decisive emergency care and management is necessary when one or more of the following conditions are present:

1. *Alcohol Coma*—The comatose state is a result of severe alcohol intoxication without co-existing conditions, i.e., head injury, gastrointestinal bleeding, concomitant use of other drugs, hypoglycemia or hepatic coma. The diagnosis is corroborated by a BAL greater than 4,000 mg per/l. Ideally, patients in such a condition should be cared for in a medical intensive care unit.[6] Treatment of alcohol coma most often requires mechanical ventilatory support with suctioning, correction of electrolyte imbalance and hypoglycemia when present, and other measures pertinent to the treatment of coma and shock, including volume expansion and use of vasopressors such as levarterenol or dopamine. If hypoglycemia is suspected, 50 ml. of fifty percent glucose solution is given intravenously after appropriate blood samples have been obtained. Thiamine 50-100 mg i.m. is administered routinely, irrespective of glucose administration.[7] Since alcohol is absorbed rapidly there is usually no indication for gastric lavage or activated charcoal unless large amounts of alcohol were known to be ingested less than 2 hours before initiation of treatment. Intubation of the unconscious patient must be done beforehand to prevent aspiration. Lavage and activated charcoal would more likely be efficacious if other drugs have been ingested in addition to alcohol, since their absorption rate might be slower. The administration of analeptics (picrotoxin, caffeine, ethamivan, etc.) is no longer considered to be effective medical treatment.[8] In extreme cases of alcohol coma (BAL> than 6,000 mg/l or BAL> 4,000 mg/l with severe acidosis (pH<7.0)) hemodialysis or peritoneal dialysis may be considered.[9]

2. *Alcohol Withdrawal* (severe)—This condition is characterized by diaphoresis and marked tremulousness, auditory or visual hallucinosis, seizures, and global confusion (delirium). Symptoms are usually seen in combination, but vary considerably on an individual basis. Manifestations typically occur during a period of relative or absolute abstinence following sustained inebriety.[10] Delirium tremens is the most serious complication and occurs in fewer than five percent of hospitalized patients in withdrawal.[11] The mortality for this condition, often as high as fifteen percent, can be lowered by the proper treatment of co-existing medical complications. Benzodiazepine compounds, preferably by oral or intravenous route, represent the most common form of drug therapy. They provide subjective relief in withdrawal reactions, as well as in the prevention and/or treatment of the more serious complications such as seizures and arrhythmias while adding little or no direct toxicity.[12] A dosage regimen for chlordiazepoxide hydrochloride and diazepam is listed in Figure 2; examples of medical orders for treatment of the withdrawal syndrome appear in Figure 3, [13] which also includes a detoxification regimen using phenobarbital in place of benzodiazepines in equally effective dosages.[14]

Associated seizure disorders usually respond well to intravenous diazepam with augmentation provided by diphenylhydantoin.[15] Haloperidol has been effective for the treatment of hallucinosis and unlike the phenothiazines does not introduce the problem of hypotension.

On an inpatient service, any effective sedative or hypnotic may be added to the drug therapy regimen at bedtime. It is generally wise, however, to avoid prescribing medications which have a high abuse and addiction potential, a small margin of safety between therapeutic and lethal dosages, and/or are nondialyzable. These factors preclude the routine use of glutethimide, methaqualone, ethchlorvynol, and methyprylon in alcohol patients. Chloral hydrate is one of a number of hour-of-sleep medications which has been used safely and effectively, in decreasing doses, during the first few days of detoxification. None of the sedative-hypnotic drugs or minor tranquilizers which show cross-tolerance and cross-dependence with alcohol should be continued routinely post-detoxification or in an outpatient setting.

In addition to the sedative drugs, the patient in severe withdrawal should be given Thiamine 50-100 mg i.m., 50% glucose 50 cc I.V. (if confusion and belligerence seem to be related to hypoglycemia). Fluid and electrolyte imbalances should be corrected. The majority of patients in withdrawal can take adequate fluids by mouth but the patient in delirium tremens requires intravenous fluid administration up to 6,000 ml of fluid daily of which 1500 ml should be saline.[16] The patient in delirium tremens needs frequent measurement of vital signs (every 30 minutes) in anticipation of peripheral circulatory collapse or hyperthermia, as well as careful monitoring of fluid and electrolyte balance. Total body magnesium is usually depleted in these patients and the intramuscular administration of this electrolyte not only repletes stores but can effectively suppress withdrawal seizures, tremor and cardiac arrhythmias. Other drugs (diazepam, procaninimide hydrochloride, and propranolol hydrochloride), however, are less toxic than magnesium sulfate and equally effective in treating these specific complications.[17]

3. *Medical Complications*—A variety of acute and chronic medical problems of varying degrees of severity are commonly associated with the alcoholic patient and may require specific treatment even in the absence of significant alcohol intoxication or withdrawal. For example, the polyneuropathy and amblyopia sometimes seen in alcoholics are related to Vitamin B complex deficiencies and the conditions may improve

CLINICAL CONDITION	DRUG	ROUTE OF ADMINISTRATION	DOSAGE & INTERVAL	NOTE
SHOCK	Levarterenol bitartrate (Levophed)	Intravenous Infusion	4μg/ml solution as follows: 4-20μg/min. usually sufficies.	Monitoring of blood pressure at least every 15 min.; normotensive levels should not be overshot.
	Dopamine hydrochloride (Intropin)	Intravenous drip	400-800 mg/l solution as follows: initial rate 2.5μg/kg per min. increased gradually to 10-20μg/kg per min.	Frequent monitoring of the rate of urine flow essential as index of adequate response.
HYPOGLYCEMIA	Glucose (Dextrose)	Intravenous	50 cc., 50% solution with continuous 5% dextrose/water.	
WERNICKE-KORSAKOFF (& Thiamine depletion)	Thiamine	Intramuscular	50-100 mg x 2-3 doses (followed by oral doses as Vitamin B complex daily for 2-3 weeks).	Intravenous dose can be given initially by addition to glucose infusion.
ALCOHOL WITHDRAWAL (Mild - Severe)	Chlordiazepoxide (Librium)	Oral	25-50 mg q. 3-6 h. Dosage decreased daily over 4-5 days, then discontinued.	Initial dosage(s) can be increased at shorter intervals, if necessary, to total of 500-600 mg in first 24 h.
	Diazepam (Valium)	Oral	5-10 mg q. 3-6 h.	As above, if necessary, to 120 mg in first 24 h.
ALCOHOL WITHDRAWAL (Severe, Extreme agitation, Delirium)	Chlordiazepoxide (Librium)	Intravenous	12.5 mg/min. by slow infusion.	Use cautiously until patient is calm, then dosage individualized.
	Diazepam (Valium)	Intravenous	2.5 mg/min. by slow infusion.	As above.
INSOMNIA	Chloral hydrate	Oral	1 gm. h.s.p.r.n., may repeat x 1.	Allow half dosage on second night, 0.5 gm. without repeat on third night then discontinue.
LOW MAGNESIUM	Magnesium Sulfate	Intramuscular	2 cc., 50% q. 6 h. to total of **3 - 4** doses.	
HISTORY OF SEIZURE	Phenytoin (Dilantin)	Oral	100 mg q. 8 h. (maintenance)	If Phenytoin not detected in blood sample give loading dose 200-300 mg
SEIZURE (& Status Epilepticus)	Diazepam (Valium)	Intravenous (Slowly)	5-10 mg slowly (Up to 30 mg)	May repeat q. 30-60 min. if seizures recur.
REPEATED SEIZURES	Phenytoin (Dilantin)	Intravenous (Slowly)	Loading dose: 10 mg/kg body weight; inject undiluted solution directly into vein at rate of 50 mg/min.	Used in addition to Diazepam. Slow injection avoids cardiovascular complications; direct injection preferable to infusion addition.
WITHDRAWAL SEIZURES, TREMOR	Diazepam (Valium)	-------------	See Seizures	----------------------------
ARRHYTHMIAS	Propranolol (Inderal)	Oral	Maintenance: 20-40 t.i.d. or q.i.d. Higher doses may be given initially q. 2 h.	
		Intravenous	1-3 mg over several min. or 0.5 mg increments with continuous ECG monitoring	Intravenous administration reserved only for very serious arrhythmias.
	Procainimide (Pronestyl)	Oral or Intramuscular	Maintenance: 0.5-1.0 gm. q. 4-6 h.	Initial dose 1.25 gm. p.o.; followed by 750 mg in 1 hour if response by ECG is inadequate.
		Intravenous	200-500 mg at a rate not to exceed 25-50 mg/min.	Intravenous administration reserved only for very serious arrhythmias.
HALLUCINOSIS	Haloperidol (Haldol)	Intramuscular	0.5-2mg q. 2 h. p.r.n.	Can be used in addition to Benzodiazepines. Extra pyrmidal side effects common; use Cogentin or Artane in 1-2 mg doses.
	Perphenazine (Trilafon)	Intramuscular	5 mg	As above.
	Chlordiazepoxide (Librium)	Intramuscular	50-100 mg	Absorption erratic by intramuscular route.
PATHOLOGICAL INTOXICATION	Haloperidol (Haldol)	Intramuscular	2 - 5 mg; may repeat in 1 h. if necessary.	Extra pyrmidal side effects common; Use Cogentin 1 mg i.m. for every 5 mg Haldol; then continue Cogentin 1-2 mg p.o. b.i.d.

Figure 2
Guideline for Initiation of Drug Therapy

with restoration of vitamins. Likewise, thiamine deficiency is common in alcoholics and since it is a causative factor in the Wernicke's-Korsakoff's syndrome, it has become common practice to administer thiamine 50-100 mg upon admission and continue replacement for two to three weeks thereafter. Vitamin B supplementation has general acceptance as supportive treatment in the overall nutritional restoration of the vitamin-depleted alcoholic.

It is not in the scope of this paper to describe the many specific diagnostic and treatment procedures related to the variety of medical complications presented by the alcoholic patient. It is essential, however, that the high incidence of infections (pneumonia, tuberculosis), gastrointestinal bleeding, liver disease, and neuronal vitamin-nutritional deficiencies in this patient population be kept in mind for proper diagnosis and comprehensive care. Specific entities commonly associated with alcoholism include: alcoholic hepatitis; fatty degeneration in absence of other known causes; Laennec's cirrhosis; hepatic failure; pancreatitis; certain gastrointestinal disorders (ulcers, gastritis, esophageal varices, etc.); certain anemias and coagulation disorders; Wernicke's Korsakoff's syndrome; alcoholic cerebellar degeneration; toxic amblyopia; alcoholic myopathy; cardio myopathy; beriberi; and pellagra.[18]

4. *Trauma*—Prevalent in cases of excessive drinking are: auto accidents falling and fighting injuries, burns from smoking, neuritis from sustained pressure on an appendage during unconsciousness, and overexposure to adverse environmental conditions. The patient should have a complete neurological examination and skull x-rays should always be done if there is any evidence or suspicion of head trauma. The deleterious effects of head injury are not always observable upon initial examination; the patient should be observed for signs and symptoms of subdural or epidermal hematoma. Admission to hospital is often necessary because of co-existing alcohol intoxication or withdrawal and/or to insure proper care and follow-up treatment.

5. *Idiosyncratic Response to Alcohol*—(a) Pathological intoxication is an uncommon psychiatric condition precipitated by the intake of small amounts of alcohol and characterized by the sudden and dramatic onset of symptoms which might include rage, confusion, hyperactivity, emotional lability, and combative-destructive behavior. Although the patient characteristically exhibits behaviors usually associated with severe intoxication, there has, in fact, been no excessive alcohol intake. If this diagnosis is suspected, it should be corroborated by a low blood alcohol level. Immediate psychiatric evaluation is required in such cases.[19] Recommended treatment is sedation with haloperidol, possible application of mechanical restraints, and admission for continued observation on a psychiatric unit. (b) Alcoholic hallucinosis is a psychiatric condition which occurs during alcohol intake or withdrawal and may be a manifestation of an underlying schizophrenic disorder. Hallucinations in such cases are usually auditory in a clear sensorium with intact orientation. Violent self-destructive behavior, panic and paranoid symptoms with delusions of persecution are also common. Hospitalization is indicated to protect the patient from himself or others. Drug therapy for acute symptomatology includes chlordiazepoxide hydrochloride for mild sedation[20] but usually anti-psychotic agents such as haloperidol or perphenazine are indicated. Chlordiazepoxide hydrochloride may be continued for several days if there is evidence of withdrawal symptoms from alcohol. Continuation of anti-psychotic medication should be in accordance with the patient's symptoms, but minor tranquilizers should routinely be discontinued prior to discharge from hospital as with other alcohol patients.

B. *Observation and Supportive Therapy*—Patients who do not require acute care but are determined to be incapacitated by alcohol (or a combination of drugs) should be managed with a course of treatment which provides for supportive therapy and observation until the patient regains a state of reasonable control (see Figure 4). This observation period may last up to 48 hours or until the patient is no longer incapacitated whichever is shorter, unless he is committed under the provisions of Section 17-155x of the Act or unless he consents to further medical evaluation or treatment. Laboratory tests (blood alcohol) are conducted, if necessary, for medical management. During and at the end of this observation period, several referral options exist for extended care and management: inpatient hospitalization (medical); return to the custody of police; hospital-based alcohol program; commitment to a state hospital on a three-day alcohol certificate; psychiatric hospitalization or commitment to a state hospital on a 15-day psychiatric certificate; community alcohol treatment program (free standing detoxification facility, a day treatment program, outpatient care, A.A., etc.); future outpatient treatment and home under the recognizance of a responsible third party. If the patient has no home, the hospital shall *assist* him in obtaining shelter.

C. *Stabilization and Minimal Care*—If at the point of entry the patient is neither acutely ill nor incapacitated, and after medical evaluation (which may include laboratory tests) appears only to be intoxicated, the most appropriate course of action would vary according to state of intoxication and the particular situation. Some hospitals have chosen to treat intoxicated patients much in the same way as incapacitated patients by "holding them for observation" for a period of time until a reasonable degree of control over psychomotor function is attained. Emergency rooms often set aside one room for this specific purpose and, in some instances, have employed or developed a volunteer corps of recovered alcoholics or alcohol counsellors from community programs to assist in patient management and disposition. Alternatives available during and after the stabilization and minimal care step include: referral to alcohol treatment programs; voluntary continued observation; released to home or assisted in finding shelter. Patients who are either incapacitated or intoxicated and are being observed pending disposition can be treated via a medical regimen. This treatment is designed for the purposes of stabilization and prevention or more serious illness. An example of such a treatment schedule appears in Figure 4.[21]

TREATMENT OF ACUTE WITHDRAWAL SYNDROME

1. Benzodiazepine as indicated in Figure #2, or phenobarbital as follows:

   Day 1—2 grains i.m. q. 2-4 hrs.
   Day 2—60 mg p.o. q.i.d.
   Day 3—30 mg p.o. q.i.d.
   Day 4—30 mg p.o. b.i.d.
2. Thiamine 50-100 mg, I.M.
3. Some advocate routine administration of 50% Glucose, 50 cc., I.V. as protection against hypoglycemia.
4. Patient watch as in Figure #4.
5. Low or protected bed.
6. Lighted, quiet room.
7. Restraints—Avoid mechanical restraints unless absolutely necessary; people and/or chemical restraints are usually sufficient.
8. Convenience orders—For gastrointestinal upset (Maalox), headache, nausea, diarrhea, etc.
9. Insomnia—Chloral hydrate (see Figure #2).
10. History of seizures and treatment of seizures: Diazepam, phenytoin (see Figure #2).

DELIRIUM TREMENS

In addition to the above:

1. Thorough physical examination, x-rays and laboratory tests for careful search of injury and/or infection.
2. Correct any electrolyte imbalances including sodium, potassium and magnesium.
3. Patient should be well hydrated (severe perspiration, agitation may require up to 6000 ml of fluid daily, of which 1500 ml is normal saline).
4. Use of Benzodiazepine as in Figure #2.
5. Counter hypoglycemia should it develop.
6. For hyperthermia—Ice packs or cooling mattress, treatment of any infection.
7. Shock, vascular collapse—Whole blood transfusions, fluids, vasopressor drugs as with shock from other cause.

Figure 3
Treatment of Acute Withdrawal Syndrome

TREATMENT OF INCAPACITATION OR INTOXICATION

1. Observation—The patient should improve some within a few hours; absorption from the stomach may go on for a few hours (95% absorption in 45 minutes on an *empty* stomach).
2. Supportive therapy re: respiration, cardiovascular system, aspiration.
3. Patient watch or "Baby Sitter" (often trained volunteer or patient).

   People restraint is generally more effective than chemical or physical restraints. A volunteer worker, staff or patient advanced in his/her recovery process may offer reassurance, protection from injury and interference with ER procedures, and build a relationship for role induction into aftercare, viz—Alcoholics Anonymous.
4. Protective bed.
5. Thiamine 50-100 mg, I.M.
6. 50 ml 50% glucose intravenously.
7. Generally withhold other sedative—tranquilizers unless specific indication (may still be absorbing alcohol).

   For chemical restraint if specific indication (assaultiveness, otherwise uncontrolled psychosis) use Librium or Haldol in dosages indicated in Figure #2 for "Hallucinosis."
8. Multivitamin daily.
9. After intoxicated phase—Librium 25 mg p.o., q.i.d. x 3 days, or Valium 5 mg p.o., q.i.d. x 3 days or equivalent, as clinically indicated.
10. Mechanical restraints only when absolutely necessary.

Figure 4
Treatment of Incapacitation or Intoxication

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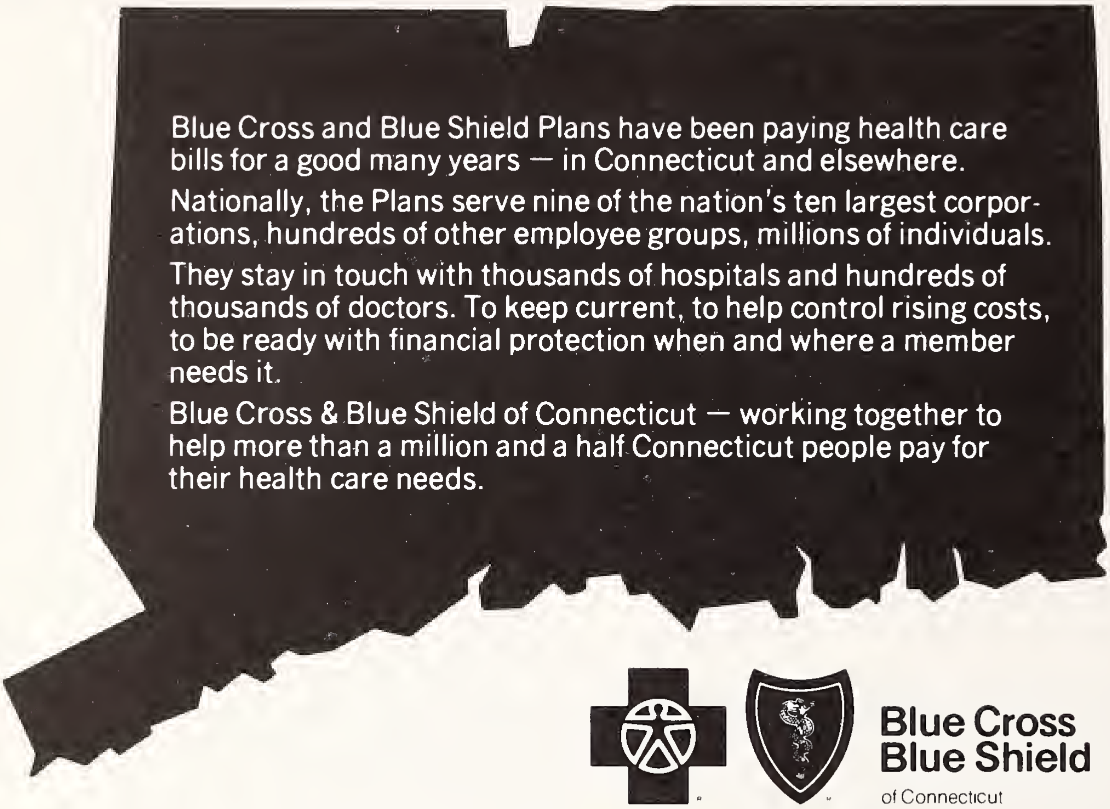

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Guidelines for Physicians Attending Patients in Long-Term Care Facilities

Physicians attending patients in long-term care facilities are responsible for the delivery and maintenance of quality medical and health care for their patients. These physicians accept and discharge their responsibilities in conjunction with the patient care and administrative policies of the facility.

To assist physicians and long-term care facilities in providing high quality health care, the House of Delegates of the American Medical Association has on two previous occasions adopted reports by the Council on Medical Service dealing with this subject. In 1959, the House adopted "Guidelines for Medical Care in Nursing Homes and Related Facilities" and in 1973 a report titled "Guidelines for a Medical Director in a Long-Term Care Facility."

The 1973 report recommended that "long-term care facilities should have either a medical director and/or an organized medical staff," and included guidelines for a medical director in a longterm care facility suggesting duties which he should perform. These guidelines recognized that physicians with patients in a long-term care facility seldom organize themselves into a formal medical staff, and that where a medical director has been appointed in a nursing home, he ordinarily has functions which in the hospital are performed by an organized medical staff.

As this House of Delegates is aware, skilled nursing facilities participating in Medicare and/or Medicaid as of January 1976 are required to retain a physician to serve as medical director on a part-time or full-time basis. Federal regulations state that "if the facility has an organized medical staff, the medical director is designated by the medical staff with the approval of the governing body." To achieve more physician involvement in nursing home care and implement the medical director requirement for skilled nursing facilities, the Council on Medical Service believes it is important to identify more clearly the responsibilities of physicians attending patients in these facilities. To the end, the following "Guidelines for Physicians Attending Patients in Long-Term Care Facilities" are submitted to the House of Delegates.

These new Guidelines are designed to clarify the role of attending physicians in long-term care facilities, to help them achieve high quality care for their patients, and to assist them in working with the medical director in developing policies affecting patient care. They are intended to supplement the 1973 "Guidelines for a Medical Director in a Long-Term Care Facility" and to replace the earlier 1959 report. *They should, of course, be taken as general suggestions only, and will need to be adapted to local conditions.*

Guidelines

1. Each licensed physician admitting patients to the long-term care facility should observe its patient care policies, including those governing the provision of physician services. The final decision on admitting privileges to the facility rests with the administrator acting for the governing body.

2. Each physician seeking to admit a patient should obtain the administrator's consent.

3. It is important that each physician admitting patients provide such information as may be necessary to assure the protection of other patients and the facility's administration from those patients who are or may become a source of danger.

4. Each attending physician should designate an alternate physician or should advise his physician exchange of who may be called to see his patients for regular or emergency care when the attending physician is not available. In the event that neither the attending physician nor the designated alternate physician is available to examine and treat a patient requiring immediate attention, the medical director shall have the authority to call another physician for appropriate treatment or treat the patient himself.

5. Prior to or upon admission of a patient, it would be desirable for the attending physician to perform a physical examination of his patient and provide the facility with an admitting diagnosis, statement of patient's functional status, and orders for diet, medication and initial treatment. Other patient information required by the facility may be provided at the time of admission or within 48 hours thereafter and should include a family history, past medical history, report of current medical findings, and a statement of rehabilitation potential and prognosis. The physician should also make arrangements for furnishing the facility with appropriate laboratory, X-ray, and consultation reports.

6. Each attending physician is responsible for planning the medical care of his patient. Upon admission of his patient, the physician should make a medical evaluation of his patient's immediate and long-term care needs. This should include information about medications, treatments, rehabilitative services, diets, precautions related to activities

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Report of the Council on Medical Service of the AMA to the House of Delegates, Annual Meeting, June, 1977.

undertaken by the patient, and plans for continuing care and, when appropriate, discharge. In developing this plan, it may be necessary for the attending physician to consult with the patient's family. The attending physician should review this plan at least annually and make revisions when appropriate. The plan may be reviewed by the medical director so that he may ensure consistency with the facility's policies.

7. The facility should inform each attending physician of the social, psychological and other non-medical aspects of care for his patient so that he may assure himself that such care is compatible with the medical condition of the patient.

8. The attending physician should be aware of the need for the medical director, in fulfilling his required duties, to review the records of patients in the facility and, on occasion, actually contact the patient and/or family.

9. It is desirable for the attending physician to consult with the medical director and/or administrator when, in the judgment of either, there is a question as to the appropriate placement or the advisability of transfer of any patient originally admitted by the attending physician.

10. It would be desirable for the attending physician to consult with another qualified physician in all cases in which the diagnosis is obscure or when there is doubt about the preferred therapeutic measures. Judgment as to the severity of the illness or disability or questions of doubt as to diagnosis and treatment rests with the attending physician.

11. The attending physician should visit his patient on a schedule determined by the patient's medical needs, and which is consistent with any state or federal regulations applicable, and this schedule should be documented in the patient's record. The attending physician may review his schedule of visits for each patient in conjunction with an annual re-evaluation of the patient's health status.

12. During each visit, the attending physician should see his patient, sign all written changes in orders and enter a progress note in the patient's record indicating that the patient has been visited. It should be the duty of the charge nurse to call the attention of the attending physician to orders requiring renewal. Except as specifically indicated below, treatment orders should not be permitted to expire without notification to the attending physician.

13. The attending physician should give all orders for treatment in writing. An order may be considered in writing if it is dictated to a licensed nurse, signed and dated by the nurse, and countersigned by the physician at the time of his next visit to the facility.

14. The attending physician and the charge nurse should review the patient's medications and other treatment orders at time of visits. If there are no changes in the orders, the physician need only write that the orders be continued. However, this privilege of a simple note may be limited by facility policy.

15. Patients should be discharged only on written orders of the attending physician, except that in an emergency situation the medical director may order a transfer to a hospital. The attending physician should furnish the necessary information on the transfer form, and should complete and sign the patient's records, including the final diagnosis and discharge summary within 14 days after discharge. If the patient is to be transferred, the attending physician may, except in an emergency, furnish the necessary information on the transfer form.

16. The attending physician should recognize that all drug orders for narcotics, sedatives and hypnotics, anticoagulants and antibiotics will be automatically discontinued after 72 hours unless the order specifies the number of doses to be administered, and the duration of time is specified.

17. The attending physician should be aware that the pharmacist reviews the drug regimen of each patient at least monthly and reports his comments to the medical director and administrator.

In those instances where the medical director and the pharmacist question the appropriateness of the drug regimen, the question should be brought to the attention of the attending physician.

18. It would be desirable for each attending physician to prepare and maintain a complete medical record for each patient, using the appropriate forms adopted by the facility.

19. It would be desirable for each attending physician to participate in developing and maintaining a quality assurance program for the facility. Such participation would extend to medical care evaluation studies and periodic assessments and evaluation of patient care.

20. The attending physician should recognize that all records are the property of the facility and may not be removed without permission. In case of readmission of a patient, all previous records should be available for the use of the attending physician. This should apply whether the patient is attended by the same or by another physician.

21. The attending physician should have free access to all medical records of all patients in the facility for bona fide study and research, consistent with preserving the confidentiality of personal information concerning individual patients and physicians. Physicians formerly having patients in the facility should be permitted free access to information from the medical records of their patients covering all periods during which the physicians attended such patients.

22. The attending physician may attend an annual meeting at which the medical director, the administrator and the committees functioning in the facility shall make appropriate reports. Each attending physician should have the opportunity to make recommendations concerning the facility's staff, services and resources.

Month in Washington

Congress was moving to wrap up work on as much health legislation as possible in preparation for the gathering storm over national health insurance (NHI) in 1978.

The Administration was putting strong pressures on Senators and Representatives to move quickly on President Carter's proposal for a "cap" on allowable hospital revenue increases, insisting that the cost containment plan was a prerequisite for NHI.

Despite the sense of urgency imparted by the Administration, it appeared that jurisdictional problems, a cooling-off by organized labor on the plan, and stiff opposition from hospital and physician groups, would serve to carry the issue over until next year.

The Administration was keeping mum about the form its NHI program will take. Task forces of planners were busy at HEW drafting various approaches. About the only certainty at this stage is that the Carter NHI bill will call for implementation in stages to avoid a crushing financial burden on the federal treasury.

Few expect Congress can do more next year than take a good look at NHI. The awkward jurisdictional tangle in Congress, where two committees in both House and Senate must share jurisdiction, makes for delay. With lawmakers anxious to get the session over with quickly so they can campaign for the 1978 elections, only the most sanguine NHI proponents predict final congressional action next year.

Analyzing the NHI situation for the benefit of Congress, the Congressional Budget Office (CBO) issued a report warning that "if strategies to contain health expenditures are not adopted soon, the possibility of enacting a comprehensive national health insurance program may be adversely affected."

In addition to the Hospital Cost plan, Congress in the final weeks of the 1977 session was faced with numerous other health issues. Among the measures hanging fire were the HEW Department appropriation which had been stalled over the abortion issue; new federal regulations for clinical laboratories; Medicare-Medicaid fraud and abuse; federal aid for rural health clinic physician extenders; the Administration's plan for expanding the child health program; and an omnibus drug bill making many changes in Food and Drug Administration (FDA) operations and regulations, including new labelling language.

Some of these bills were fated to remain lodged in Congress until 1978. The only sure bet for passage in 1977 was the appropriations bill which gives HEW several billion dollars more than President Carter recommended and continues to bar federal Medicaid payments for most abortions.

Other major health bills before Congress included an 18-month delay in the proposed FDA ban on saccharin; amending the renal disease program to encourage self-dialysis and kidney transplants; establishing a separate Department of Health; and freeing federal scholarship stipends from income tax.

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The gloomy report by the Congressional Budget Office (CBO) on health spending advised House and Senate Budget Committees that current control efforts "will apparently have little effect on the upward trend in health expenditures. . . "

The report said existing reimbursement, facility, and utilization containment programs can be altered by increasing or decreasing the level of regulation. "Changes must be made in hospital reimbursement practices if some immediate impact on hospital expenditures is to occur," the report said.

According to the CBO, "A successful program, whether administered at the state or federal level, would have to break the automatic cost-increase/revenue-increase relationship that is currently enjoyed by individual hospitals. Certificate-of-need programs could be strengthened through increased financial support for the state agencies, more precise federal guidelines, and perhaps limits on capital spending. The cost-effectiveness of PSROs might be improved by restricting utilization review to more questional medical practices or by emphasizing preadmission review."

The way the CBO sees it, "The expansion of regulatory efforts is an attempt to compensate for the overutilization of health care and the failure of high costs to lessen demand. Appropriate changes in the underlying supply and demand factors could reduce

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Prepared by the Washington, D.C.
Office of the American Medical Association

the need for hospital regulation. Moreover, because these supply and demand factors operate throughout the entire health sector, successful containment of hospital expenditures might accelerate nonhospital expenditures. Increases in patients' out-of-pocket costs or limits on physicians' fees might, however, increase price-consciousness related to nonhospital care."

The report continued: "Federal regulatory efforts to contain the supply of resources have concentrated on beds and facilities, virtually disregarding manpower and technology. While prospective reimbursement and utilization control programs can be strengthened and thereby reduce health expenditures, their effectiveness may be limited without national health insurance because of the number of third-party payers and the variation in their payment procedures. Supply policies, however, might be quite effective without national health insurance. (Countries with national health insurance plans are relying increasingly on constraints in supply to contain health expenditures.)"

Future growth in the number of physicians could be reduced particularly by restricting the influx of foreign medical graduates, CBO said, adding:

"Because each additional practicing physician generates expenditures for both hospital and physician care far beyond the level of his net income, strategies to reduce the impact of each physician on total expenditures could be considered. Altering reimbursement schedules and increasing the proportion of physicians in primary care and in prepaid health plans are possible strategies."

Present reimbursement, facility, and utilization containment programs directed at hospitals could be changed by strategies which represent incremental change, stronger regulation, or weaker regulation, said CBO. "A strategy of reducing regulation would result from the belief that either a more competitive health-care market or greater price-consciousness would be more effective in containing costs."

The report conceded that "because of limited knowledge, it is not possible to predict accurately the cost savings or increased costs resulting from increases or decreases in regulatory efforts."

Concluded the report: "Under current policies, health expenditures will continue to absorb a larger proportion of the nation's resources and of the federal budget. These trends could be slowed down significantly by increased regulation similar to that recently proposed by President Carter to contain future hospital revenues and investments. Increased cost-sharing by patients or a significant reorganization of the health-care delivery system are other alternatives. If strategies to contain health expenditures are not adopted soon, the possibility of enacting a comprehensive national health insurance program may be adversely affected. Moreover, a long delay is likely to produce even more severe proposals for containing health expenditures—proposals that are likely to freeze prevailing health expenditure patterns."

****

In an 8,800 word critique, the Pharmaceutical Manufacturers Association characterized the Final Report of the HEW Review Panel on New Drug Regulation as a "philosophical endorsement of corrosive regulation" that would create "impediments to the efficiency of the new drug approval process."

Though commending some specific recommendations and comments, including the conclusion that the Food and Drug Administration is neither pro- nor anti-industry, PMA President C. Joseph Stetler says the Panel "consistently slides into the trap of statutory and regulatory solutions."

"Thus we come to a stunning statistic," the PMA covering letter to the critique reads. "All told, the Panel makes some 90 recommendations, many of them calling for new increments of regulation—without one mention of any withdrawal or lessening of agency power. While many of these suggestions are procedural in nature, cumulatively and inevitably they would change our national policy toward drug research and drug products. In our view, that change would unquestionably be for the worse in the form of more cumbersome, costly and slower processes."

PMA said the Panel displays "insufficient understanding of the real world of science," that it leans "toward an adversarial rather than a cooperative philosophy for FDA-industry relationships," and that it ignores the "innovative capabilities" of the American pharmaceutical and device industry with its more than a billion dollars a year research effort.

"At some point, regulatory demands can become so strict that government will have erected formidable barriers to competitive entry and only the larger and best-equipped firms can continue in the race. In the process, useful new drugs will be lost or delayed and the cost of those still available will be inflated. Government then will have created more concentration in an industry where both price and product competition have been intense, with the benefits flowing ultimately to the consumer," PMA asserted.

PMA charged that in perception of the "drug lag," the Panel "manifests further disinterest in the industry's R & D (research) challenges." The critique lists more than a score of important drugs "now accepted as safe and effective in the U.S., which went on the market overseas two or more years ahead of U.S. introduction. The cost of these delays to American patients, in human terms alone, is incalculable."

The President's Page

It has been my purpose to utilize this page in the recent months to inform the membership of performance by the leadership which hopefully will be advancing the welfare of the Society, its members and their patients. It is further my intent to delineate any changes in direction of involvement as well as new developments in areas wherein we already are involved.

In this light, there are two areas now to mention and later to be reported upon in detail: A, our concern with the rate of assignment in Medicare and our recommendations to increase this rate; and B, our continuing lawsuit with the Federal Trade Commission.

In this column, I shall now attempt to report on the recent involvement of the CSMS in that escalation of medical care costs which are directly influenced by our physicians in the care of their patients. Last month I reported on a meeting called by the Society to study the feasibility of having each general hospital medical staff initiate a committee of its members to study with hospital administration those areas in each hospital wherein savings could be made without sacrificing the quality of medical care. I then reported that with eighteen general hospitals represented at our meeting, there was a vote carried by a three to one margin requesting that each hospital initiate such a committee.

Last month I indicated our intent to sponsor a series of seminars dealing specifically with the role of the physician and his influence on medical costs. In mid August the CSMS initiated the series by sponsoring a seminar on the impact of the use of antibiotics on hospital costs. A panel of two physicians, a hospital administrator, and a hospital pharmacist engaged in an in-depth presentation of the many aspects of the subject.

They made the following points:

A. Quality care is the least expensive, avoiding complications which prolong hospitalization and often require expensive, sophisticated therapy.

B. The expensive antibiotics are indicated promptly and aggressively for the hospital-based infections now more common because of the increasing age of the patient population and the increasingly complicated therapies employed.

C. Cost savings may also be found in changes in techniques.

D. Stop orders of antibiotics will cut down on cost and inappropriate treatment.

E. Medical audits should indicate problem areas and minimize their likelihood.

The broadly-based audience of over seventy, in a discussion after the formal presentation, lauded our effort and involvement and encouraged us to develop similar probes into other areas of doctor-patient-hospital relationships.

It is of course gratifying that the seminar confirmed that quality care is also the least expensive. Many of us have been uneasy, thinking that economy may be a threat to optimal or even adequate care. With this nagging fear laid to rest, we can optimistically continue this direct involvement of the Society as such into the delivery of patient care, recognizing that by our efforts we can render quality care and discharge our responsibilities to society at large in this complicated area of cost effectiveness.

Isadore H. Friedberg, M.D.
President

Reflections from the Dean's Office

ROBERT U. MASSEY, M.D.

For several years hospital administrators in Connecticut have had an experience with new principles of management, or rather principles new to them. These involve two sets of objectives, generally mutually exclusive, which must be attended to at the same time.

When the administrator is faced with a decision in 1977 about a new service or a new program, his first consideration must be how the Commission on Hospitals and Health Care will see it. To maintain his own integrity, he must *believe* that his first concern is patient care, but he knows that economic and political considerations will carry the most weight in the end.

The rapid increase in the cost of medical care during the past decade is a symptom of a complex social disorder, and neither the symptom nor the disorder can be neglected much longer. The Commission's remedy, by analogy, is akin to bleeding and purging. What is needed is a careful analysis of the causes, but that may take more time than we shall have. There should also be agreement on whether, indeed, there is a problem in Connecticut.

Undoubtedly dollars have been saved by the Commission, and some have been lost. If the dollars saved were set aside for prevention, education, research, or better services, then it could be argued that society had gained. What has been lost cannot easily be demonstrated. That hospital directors and hospital boards should attend more to the Commission than to the affairs of their hospitals almost certainly diminishes hospital services, but that would be difficult to prove. A gradual decline into mediocrity may go unnoticed, but the cynicism that accompanies it is palpable, even if the cost is hard to count.

The provision of health services is costly, and it is costly in all of the world and especially in the developed nations. By comparison there is little remarkable about medical care costs in the United States, but there is a remarkably high quality of services, research, and education. Some knowledgeable physicians in Western Europe, and even in Great Britain, suspect that we may have the best medicine in the world. That, of course, cannot be a statement of fact, because there are no ways by which such a judgment could be unqualifiably made. Nevertheless, simply diverting resources away from health care, research, and education without managing those resources in some better way will not improve the system nor the quality of the people willing to devote their lives to it.

In Connecticut, physicians have stood aside while hospitals have faced and fought the political and economic battles, have tended not to see themselves and the hospitals linked together in a common cause. They have believed, properly, that their overriding concern must be for their patients, and that the administrators, bureaucrats, and legislators would have to work our their problems in their own ways. With their vision kept clear by a daily encounter with some of the profoundest problems of life, physicians tend to see administrators, bureaucrats, and legislators as living in a kind of nightmare world of their own making. If they had the time they would satirize them all.

Even though it may appear at times as a kind of comedy which will deserve no more than a paragraph in a history book a generation from now, the consequences of the struggle over "cost containment" are real. The cost and the quality of medical care and the policies by which both are determined are matters which belong equally to physicians, hospitals, and medical schools.

Our patients, or the public cannot decide the outcome. The usual market forces, except in a very large and general way, do not work in health care; and furthermore, the issues become political before informed decisions can be made even when there is good will on all sides.

Physicians and hospitals do not help by accusing one another of being responsible for high costs or impersonal care, nor are we well served when the American Medical Association and the Association of American Medical Colleges find themselves at odds over trivial issues rather than joining forces on those which matter.

Connecticut has provided the nation with two models. Beside the Commission there is the Capital Area Health Consortium in which nine hospitals, including a university hospital and a federal hospital, have agreed to work together, and in which physicians, administrators, and trustees all share in planning and helping to make decisions about health services in the public interest. That is the kind of regional model which may provide a reasonable answer for the increasing bureaucratization of our society, but it needs to succeed soon; it must step out ahead of the controllers with plans for restrained growth, cooperating services, and effective care practices.

ROBERT U. MASSEY, M.D., Dean and Professor of Medicine, University of Connecticut School of Medicine, Farmington.

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EDITORIALS

"Unnecessary" Hysterectomy

A Congressional Subcommittee on Oversight and Investigations has been reviewing the question of unnecessary surgery. Many doctors object to the term "unnecessary," and would prefer "inappropriate," "unjustified," or perhaps "elective." Ignoring the terminology used, one of the Subcommittee's major concerns has been unnecessary hysterectomy, the major indication for which appears to be sterilization.

A U.S. Department of Health, Education, and Welfare publication entitled "Your Sterilization Operation Hysterectomy" describes "one of several sterilization procedures used in current medical practice" and "is intended for use only in cases for which sterilization is the primary purpose of the hysterectomy procedure". Furthermore it "fulfills the federal requirements for informed consent as set forth in the regulations of April 18, 1974, 42 CFR 50.201 and 45 CFR 205.35".[1]

This seems to represent a conflict of views at governmental levels. Nonetheless increasing government financing of medical care is leading inevitably to increased governmental supervision and intervention. Whether the doctor likes it or not this will lead to a certain loss of freedom in making decisions. Certain rules will have to be abided by if programs are to be approved, hospitals accredited, and medical expenses paid out of governmental or insurance funds.

The Congressional Subcommittee has suggested that H.E.W. "promptly institute a program of independent second professional opinions to confirm the need for elective surgery." There are reasons why compulsory consultation for surgical procedures are undesirable: (1) The consultation fee automatically adds to the medical costs; (2) The opinion of the second physician may be no better than the first physician, and if views are divided a third opinion may have to be sought; (3) It may involve delay in cases where delay is inadvisable; (4) It forces the patient to undergo a second examination which, particularly in the case of hysterectomy, a woman may not desire. Periodic reviews of the surgery being performed in a hospital would seem a preferable approach.

What about the views of one's medical peers? What course should reviewers, service reports, or tissue committees follow?

A few years ago the question of hysterectomy for sterilization of the multiparous patient was submitted to members of the Society of Pelvic Surgeons, which included Professors of Gynecology from many leading institutions including Johns Hopkins, Yale, Harvard, Columbia, Duke, the Mayo Clinic and other medical centers. The answers, while obviously somewhat divergent, amounted to "No—unless accompanied by definite symptomatology or relaxation", or "Yes—but only in selected cases if menstrual irregularity or relaxation justifies the procedure". There were only two categorical conflicting answers. A "No" from the late Alexander Brunschwig of Memorial Hospital in New York, and a "Yes" from Stanley Way of Newcastle-on-Tyne.

A recent surveillance study in Saskatchewan has resulted in a drop in number of hysterectomies in the Province of 32.8 percent.[2] Another study showed that hysterectomy as a prophylaxis against future cancer can be expected to increase average life expectancy by approximately two months, but at a considerable cost in dollars and morbidity.[3] Also the life gained for the most part amounts to increased years in women in their late sixties and seventies, whereas the estimated 600 lives per million who may be expected to die from the procedure are relatively young mothers who are lost to their families when they may be needed the most.

Dr. Max Parrott has produced a very thoughtful presentation on indications for elective hysterectomy.[4] Hibbard and Ledger sum up the situation well when they state that the safety of hysterectomy has not been adequately proved at this point in time to justify its use for sterilization without other symptoms.[5] A tissue committee can accept the removal of a normal uterus from a multiparous patient if the record shows that the patient also had abnormal bleeding, pain, relaxation, urinary incontinence or adnexal disease. It is also acceptable in pregnancy when termination and sterilization are desired. In rare instances there may be a psychiatric indication such as severe cancerphobia.

With improvements in anesthestic and operative techniques the indications for hysterectomy for sterilization may in the future be broadened, but at this point of time the gynecologist who is confronted by a postoperative death or major complication, such as hemorrhage, urinary tract injury, sepsis, or pulmonary embolus, in a patient who has undergone hysterectomy for sterilization only, may find himself supported by a minority of his colleagues.

John McLean Morris, M.D.
John Slade Ely Professor of Gynecology
Yale University School of Medicine

REFERENCES

1. Your sterilization operation hysterectomy: DHEW Publication No. (OS) 76-50041, July 1976
2. Dyck FJ, Murphy FA, et al: Effect of surveillance on the number of hysterectomies in the Province of Saskatchewan. N Eng J Med 296:1326-1328, 1977
3. Bunker JP: Public-Health rounds at the Harvard School of Public Health. N Engl J Med 295:264-268, 1976
4. Parrott MH: Elective hysterectomy. Am J Obstet Gynecol 113:531, 1972
5. Morris J McL, Hibbard LT, and Ledger WJ: Symposium, Hysterectomy for sterilization? Contemporary Ob-Gyn 3:141-172, 1974

The Medical Audit and Continuing Medical Education

In the April 1976 issue the Editor of *Connecticut Medicine* reported his attendance at a leadership conference on Continuing Medical Education (CME).[1] Two revealing points were cited, one old and one new. The old revelation was that quantifying the quality of patient care remains elusive. The second and new concept was the dual role the physician should play as both clinician and administrator of a health team. The model example suggested at the conference was stroke care.

In this issue a report of the audit of the care of 37 amputees at a rehabilitation hospital[2] illustrates how these two issues of the elusive evaluation of quality and the dual physician role are reconciled in the arena of CME. It bears repeating that none of the proponents of medical audit/peer review as a tool for CME have advocated any one method of CME, meetings, independent reading, self assessment games, etc. They do advocate the audit as a tool to pinpoint what knowledge and skills are needed to improve patient care by individual practitioners or institutions.

Consider now, the setting of such an educational exercise when the whole team is involved in an audit. The report in question involved the care of amputees by physicians, nurses, physical and occupational therapists, recreational services, social workers and others. All professionals involved in the care of these patients are interested in the standards used to measure the process and outcomes of care.

Specifically the professionals at Gaylord might address the reasons for getting their cases to the mobility status of a cane or independence in only 8 of the 20 prosthetic cases. (Reference 2, Table 4) One might conclude that process failures, such as lack of stump x-ray or the incompleted physical and occupational therapy evaluations (Reference 2, Table 6) were responsible for these results. This often disappointing method of process problem analysis is recommended by the JCAH and others. The fallacy of such reasoning in this specific example is highlighted by the fact that these "process failures" did not affect the length of hospitalization. It is up to the physiatrists and internists at Gaylord to ask themselves and their colleagues in the paramedical disciplines if they are happy with this and other results in their care of the amputee. Is this the best one can do in this age group? Such confrontation by rehabilitative teams as well as other multidisciplinary groups averts the "orphaned data" recently decried by Nelson.[3]

The dialogue that ensues in the consideration of these data by all the professionals results in compliments, confessions, more questions, and yes, confusion. Yet out of it all emerges a clearer understanding of what they as a coordinated team are trying to do individually and collectively for the patient. Changes in the administrative procedures, clarification of responsibilities, changes in behavior, attitudes and documentation come of it; and that's education.

Daniel Hamaty, M.D.

REFERENCES

1. Fabro F: Lifelong Continuing Medical Education. Connecticut Medicine, Vol 40 No 4: 285-286 1976
2. Adler MK, Hamaty D, Brown CC, and Potts H: Evaluation of Rehabilitation Efforts in an Amputee Population
3. Nelson AR: Orphan Data and the Unclosed Loop, editorial NEJM Vol 295 No 11: p 617-619

Letters to the Editor

Letters to the Editor are welcomed and will be published, if found suitable, as space permits. Like other material submitted for publication, they must be typewritten *double spaced* (including references), must not exceed 1½ pages in length and will be subject to editing and possible abridgment.

THE BROMPTON MIXTURE (COCKTAIL)

To the Editor: Recently, the Drug Information Center at the University of Connecticut Health Center received several requests for information about the Brompton Mixture (Cocktail). This is an oral liquid analgesic mixture used to treat pain associated with terminal malignant disease. The mixture contains a variable amount of morphine sulfate, 10 mg of cocaine, 2.5 ml of ethanol, 5 ml of flavored syrup and sufficient chloroform/water to make 20 ml. A phenothiazine (e.g., Compazine^{R}) is usually administered separately to control nausea and vomiting secondary to the morphine. Cited advantages of the Brompton Mixture include ease of administration of the oral liquid (versus solid dosage forms) and ease of dosage adjustment to meet the patients' need.[1, 2]

A principle of drug therapy relating to use of mixtures is that each ingredient must contribute pharmacologically to the overall therapeutic effect. If the same results can be achieved with fewer ingredients or with a single agent, then the mixture should not be used. One such agent may be methadone. This analgesic is equipotent to morphine, has a longer duration of action with attendant reduction in dosing frequency, and may be administered as an oral liquid. Also, methadone is more bioavailable than morphine on oral administration due to minimal metabolism during its first pass through the liver. Thus, less drug may be required.[3]

Methadone Diskets, 40 mg, are available from Eli Lilly & Company. These are double-scored dispersable tablets that can be used to prepare a gel-like liquid for oral administration. Thus, a dose of 10 mg, (¼ tablet) can be administered orally in a liquid dosage form. A solution prepared from methadone diskets with preservatives at a pH of 2.5 is stable for 5 years under refrigeration.[4]

As an aside, methadone could be substituted for morphine in the Brompton Mixture for the physician who prefers to use the mixture.

No studies have been published comparing analgesic effects of the mixture with morphine alone or with methadone. However, the pharmacologic and pharmacokinetic properties of methadone suggest that it may be preferable to Brompton's Mixture in the treatment of pain in the terminally ill.

Alex Cardoni, M.S.
Associate Clinical Professor

Thomas J. Thompson, Pharm. V
Drug Information Service

University of Connecticut Health Center
Farmington, CT

REFERENCES

1. Mount BM, Ajemian I, and Scott JF: Use of the Brompton Mixture in Treating the Chronic Pain of Malignant Disease, *CMA Journal 115*:122-124 (Jul 17) 1976
2. Melzack R, Ofiesh JG, and Mount BM: The Brompton Mixture: Effects on Pain in Cancer Patients, *CMA Journal 115:* 125-129 (July 17) 1976
3. Jaffe J and Martin WR: "Narcotic Analgesics and Antagonists" in *The Pharmacological Basis of Therapeutics 5th Ed.* (Goodman and Gilman, Eds.), Macmillan, New York, 1975 p 270
4. Personal communication, Eli Lilly, Inc., Indianapolis, Indiana, August 1977

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CALL

SEMI-ANNUAL MEETING OF THE HOUSE OF DELEGATES

The 1977 Semi-Annual Meeting of the House of Delegates will be held at the Sheraton Park Plaza Hotel, New Haven, commencing at 9:00 A.M. on Thursday, November 17.

Isadore H. Friedberg, President
David A. Grendon, Speaker of the House
Louis C. Backhus, Secretary

INTRODUCTION OF RESOLUTIONS

Article V, Section 12, Par. 3 of the Bylaws of the Society Provides:

Resolutions may be introduced by any Active or Life Member of The Society, in compliance with the following provisions.

a. *All resolutions, reports and similar items of business submitted in writing and received at the office of the Executive Director not later than thirty days before the date scheduled for that meeting shall be considered as regular business of the House of Delegates.*

b. *Component county associations whose meetings are held later than thirty-five days prior to the date of the House of Delegates shall be allowed five days after the close of such meeting in which to submit resolutions, reports and similar items of business to the Executive Director's office and still have such material considered as regular business. In no event, however, may such resolutions, etc. be considered regular business if they are received later than fifteen days prior to the date of the meeting.*

c. *Reports, recommendations, resolutions or other new business may be presented to the House of Delegates by the Council of The Society at any time and shall be considered as regular business.*

d. *Any business which does not qualify as regular business in accordance with the foregoing provisions may be accepted for consideration by a majority vote of the delegates present and shall be referred at once by the Speaker to a reference committee. When business is introduced under the provision of this paragraph the vote shall be taken without debate, except that the introducer shall be allowed not more than two minutes to explain why it should be considered as regular business.*

Summary of Actions
Council Meeting

Thursday, September 8, 1977

I. Attendance

Present in addition to the Chairman, Dr. D.A. Grendon, and the Vice Chairman, Dr. G.W. Van Syckle, were: Drs. Friedberg, Freedman, Kamens, Backhus, Ragland, Jr., Spitz, Bradley, Cramer, Fabro, McGarry, Sadowski, Harkins, James, Mendillo, Krinsky, Sonnen, Whalen, Jameson, E. Beck, R. Beck, Horrax, Anderson, Magram, Eslami, Parrella, Barrett and Middleton.

Also present were: Mrs. Lindquist, Mr. Brunell, Mr. Sweeney, Mr. Tomat (FCMA), Mr. Aaronson (NHCMA), Mrs. Arafeh (CSMS Auxiliary) and Dr. Richards.

Absent were: Drs. Johnson, Hess, Canzonetti and Zlotsky.

II. Routine Business

As published and distributed, it was VOTED to approve the minutes of the meeting of August 3, 1977.

Life Memberships

It was VOTED to approve applications for Life Membership received from the following eligible Active Members:

Michael C. Anton, Newburgh, N.Y.
Sidney Drobness, Norwich
Thomas L. Ippolito, Norwalk
Americo D. Long, Portland
Edward A. Rem, New Canaan
Nicholas A. Sholler, Bridgeport

Date of Next Meeting

The Chairman set the date of the next Council meeting for Wednesday, October 5, 1977.

III. Old, New and Special Business

Connecticut Ambulatory Care Study

As directed by the Council (8/3/77), an ad hoc committee submitted a critique of the final report of the subject Study, which, with Council approval, is to be transmitted to HEW as an accompaniment of the

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA

THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W., WASHINGTON, D. C. 20005

final CACS report received by the Council at its 8/3 meeting.

After lengthy discussion of the ad hoc committee's report and making several minor amendments, it was VOTED to take the following actions:

(a) To approve the document as the Council's "comments" on the CACS report and to transmit same with the CACS report to HEW with a recommendation that "HEW be requested to release both documents simultaneously."

(b) To approve, for internal use by the Society, a recommendation that "upon release (by HEW), both documents be reviewed by the panels, physicians and institutions that participated in the Study."

(c) To approve, for internal use by the Society, a recommendation that "the Society, in the light of this (Council-approved) critique, act advisedly on the recommendations for CME contained in the CACS Report, Chapter 10.14f."

(d) To delete a recommendation which would have had the Society suggest to the State's PSROs that, based on the Council's critique of the CACS report, they consider modifying techniques for assessing medical care to minimize dependence on chart audits.

(e) To approve, for internal use by the Society, a recommendation that "the methodology for any future ambulatory care research in Connecticut include a thorough, balanced and ongoing review of pertinent literature, as well as an appropriate assessment of patient outcome as an indicator of quality of care."

(f) To discharge, with thanks, the ad hoc committee that drafted the critique.

(g) To request the President to prepare and present to the House of Delegates at its semi-annual meeting a summary of the Ambulatory Care Study, its report, findings and conclusions, and the actions taken by the Council in conjunction with transmitting the report to HEW.

(h) To receive as information a communication from the Study's HEW Project Officer, directing that the Society transmit the final chapter of the Study report to him "in the *immediate* future; hopefully by September 15." Further, to request the Project Officer to explain why, how and at whose direction the title of the project had been changed from the original "Connecticut Ambulatory Care Study" to "Connecticut Ambulatory Criteria Conformance Study".

Reports—Fiscal Subcommittee

The Council VOTED to take actions on reports of the Subcommittee as follows:

(a) *Committee on Allied Medical Services:* To approve a recommendation of the Subcommittee that up to $300 be allocated to the Committee as a standby "guarantee" to be used to meet the costs of a proposed "Conference on Joint Practice of Physicians and Nurses" (Wallingford, 11/1/77) in the event that income (from a $10 registration fee) falls short of meeting all such costs. It is understood that the Connecticut Nurses Association will offer to provide a similar guarantee.

(b) *AMA "Negotiations Education Program" in Connecticut:* To explore a suggestion of the Subcommittee that the Society seek to arrange for such a program to be held in Connecticut under the Society's auspices, and to direct Staff to ascertain from the component County Associations, the other New England state medical societies and the Medical Society of the State of New York whether they would be interested in having one or more representatives (MDs and Staff) attend such a program as participants. AMA, which will present the program, desires an audience of "approximately thirty attendees". The question of assessing a registration fee on program participants will be studied.

(c) *Journal Publication of "Medicare Assignment Rate" Statement:* To approve a recommendation of the Subcommittee to authorize the Journal Editor to publish the subject "Statement" in full in an issue of Connecticut Medicine" and to authorize him to exceed the cost of the budgeted 72-page Journal in which the statement is published by the cost of the additional pages (estimated at 8) required.

Remarks and Reports—The President

President Friedberg informed the Council of a number of matters which had required his attention in recent weeks and, where indicated, requested that the Council take appropriate action on same. The subjects and Council actions follow:

(a) *Request for Nomination—Connecticut State Alcohol Advisory Council:* It was VOTED to approve the recommendation of the President that Howard J. Wetstone, Hartford, be nominated to the Governor for appointment to the subject Advisory Council to replace J. Richard Gaintner, New Britain, resigned. Dr. Wetstone would complete the balance of Dr. Gaintner's unexpired three-year term.

(b) *Proposed CSMS-CHA Meetings:* It was VOTED to authorize CSMS representatives to meet with counterparts from the Connecticut Hospital Association to discuss matters of mutual interest and concern. Dr. Friedberg reported that the proposal was made at an informal meeting he had had with officials of CHA.

(c) *Aetna Advertisement re Medical Care Costs:* Dr. Friedberg displayed a subject advertisement, recently appearing in newspapers and magazines across the country, which had been brought to his attention by the Hartford Association. He also apprised the Council of the substance of a letter of protest that had been sent to the President of the Aetna Life and Casualty on behalf of HCMA. It was VOTED to direct Staff to write a similar letter of protest to the Aetna President on behalf of the Council, reflecting in principle the general criticism of the advertisement voiced by HCMA in its letter but not necessarily the latter's criticisms point-by-point.

(d) *Seminars re Controlling Hospital Costs and Medical Staff Involvement Therein:* Dr. Friedberg reported favorably on the first of the subject seminars previously approved by the Council and inquired whether, in light of his report, it was desired that additional seminars be planned and held under the auspices of the Society. In response, the Council VOTED to authorize the holding of additional subject seminars.

(e) *Nominations to Commission on Hospitals and Health Care:* Dr. Friedberg reported that he had delayed submitting subject nominations to the Governor for the appointment of one to the CHHC because of continued uncertainty as to whether the amendments made to the applicable statutes by the 1977 General Assembly disqualified the incumbent CSMS designee on the Commission, David A. Grendon, from completing the balance of his five-year term (1976-81). Dr. Grendon reported that, without notice from any official source that his status as a Commissioner has been changed, he has ceased to receive notices of Commission meetings, minutes, etc.

It was VOTED that the basis for the uncertainty be communicated to the Governor with a plea that Dr. Grendon be allowed to continue in office without change in his current status, or, as an acceptable alternative, that Dr. Grendon be appointed to succeed himself for the balance of his unexpired term. The keystone of this request is that Dr. Grendon qualifies as a "non-hospital, clinically based" practitioner, as called for by the amended statutes. In conjunction with this action, it was further VOTED to receive as information an analysis of the applicable statutes prepared by Staff.

In a related action, the Council VOTED to direct the President, the President-Elect, the Vice President and the Immediate Past President to seek an audience with the Governor for the purpose of discussing with her the increasing tendency for nominees of the Society for posts on state agencies *not* to be appointed and to convey the Council's disappointment at this development.

(f) *Meeting with Legislators:* Dr. Friedberg reported that he and Assistant Director Frank Sweeney had had a pleasant and promising discussion with the co-chairmen of the General Assembly's Committee on Public Health and Safety as to ways in which the Society might develop earlier and more meaningful input into bills assigned to the Committee that concern medicine and health care. He expressed the feeling that the legislators fully intended to follow up on suggestions mutually approved and indicated that representatives of the Society would do likewise.

Finally, it was VOTED to receive the President's remarks/reports as information.

Update on Status of the FTC Complaint

It was VOTED to receive as information published documents as follows: (a) The complaint brief of the FTC counsel; (b) The respondent brief of CSMS-NHCMA counsel; (c) The "Proposed Order" offered by the FTC as the basis for reaching a consent agreement with AMA and/or CSMS and/or NHCMA; (d) The decision of the U.S. Supreme Court re "advertising by attorneys" and the right of a Bar Association to place limits on such advertising.

The Council members were joined by Attorneys Grant Nickerson and William Doyle, representing the law firm of Wiggin and Dana, who brought the Council up to date on the status of the CSMS-NHCMA defense against the complaint of the FTC that both organizations, in collusion with the AMA, fix physicians' fees, inhibit competition among physicians, etc. by placing ethical limits on advertising. They reported that the often-postponed hearing before an Administrative Law Judge had begun on 9/7/77 and that they felt the opening defense statements of AMA and CSMS-NHCMA had been effective. They stated that, in their opinion, the "proposed order" offered by the FTC was unacceptable in that it was so broad and all-encompassing in its language that it would serve to deprive the medical organizations of all rights to set any standards for membership.

After a prolonged period of discussion and questions and answers, the Council VOTED (26-2) to continue the defense of the Society and the New Haven County Medical Association against the complaint of the Federal Trade Commission.

N.B.: *The foregoing is a summary of the proceedings and actions of the Council on September 8, 1977. Detailed minutes of the meetings are on file at 160 Ronan Street, New Haven, for perusal by any interested member of the Society.*

PHYSICIAN PLACEMENT SERVICE

The Society maintains the Physician Placement Service as a service to the medical profession in the State of Conncticut. Opportunities for physicians to locate in Connecticut will be published as space permits and will be distributed to physicians making inquiry of such opportunities. Information should be sent to 160 St. Ronan Street, New Haven, Connecticut 06511, (203-865-6822).

Physicians wishing to establish practice in Connecticut are invited to submit a resume to be kept on file with the Society. An announcement of a physician's availability will be published in two consecutive issues of *Connecticut Medicine*.

OPPORTUNITIES FOR PRACTICE

(If no name is listed, contact the Physician Placement Service for more details.)

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Internal Medicine: Excellent Opportunity. Solo practice for sale. Established and active since 1946. 6-figure gross. Close to University Hospital. Desire certified Internist. Send replies to CSMS.

Pediatrics: Board certified, eligible wanted for northern Fairfield county town with large and growing school population. Office 10 minutes from Yale affiliated Hospital. Position immediately available. Call 203-746-3300.

Psychiatrist: Opportunity for private practice through sharing expenses in suite of new offices; available part or full time; 17 years of service in same area; write Dr. Jack I. Esterson or Dr. William R. Poe, Associated Psychological Services, 465 Silas Deane Highway, Wethersfield, CT 06109, or call 529-7006.

Physician needed as full-time Medical Director for Connecticut's Medicaid Program. Work with Medical and Patient Review Teams and program auditors. Starting salary $25,500. Contact Stephen Press, Director, Medical Care Administration, Department of Social Services, 110 Bartholomew Avenue, Hartford, CT 06115.

Physicians needed for Social Security Disability Determination. Bd. Cert. or Elig. physicians are needed as agency consultants doing consultative examinations. Exams are scheduled in your office, reimbursement specifics provided upon request. Many specialty fields are needed, especially IM, Orthopedics, Neurology and Psychiatry. Contact Robert P. Coletti, Medical Processing Coordinator, Bureau of Disability Determination, 600 Asylum Avenue, Hartford, CT 06105 or call collect 566-4902.

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FAMILY PRACTICE

Available immediately. Age 25. Nat'l. Bds. Pre-med and M.D. from Dalhouie Int. at Royal College Hosp., Canada. Grp. or assoc. practice in large or medium community. Presently in practice. Stephen A. George, M.D., 218 Blue Mountain Rd. #200, Coquitlum, B.C., Canada V3K 4H2.

Feb. '78. Age 33, Nat'l. bds., elig. M.D. from Temple Univ. Interested in all phases of F.P. Wishes no obstetrics unless with group where all M.D.'s were doing OB. Medium community with good schools, clean environment and close access to a community hospital. Alan W. Johnson, M.D., 3521 Union St., Allentown, PA 18104.

INDUSTRIAL MEDICINE

Available now. Conn. license. Cert., Nat'l. Bds. M.D. from Harvard. Primarily employee health care or with clinic providing executive medical evaluation and counselling. Interest is in clinical medicine rather than administration. William F. Ketchum, M.D., 221 S. Harvey Ave., Old Park, IL 60302.

Oct. '77. Age 32. Cert., Nat'l. Bds. M.D. from Univ. of PA. Int. at St. Elizabeth's Hosp., MA. General Internal Medicine with small group in medium community. Robert A. Fitzgerald, M.D., 19 Coulkins Rd., Norwich, CT 06360.

Nov. '77. Age 29. Nat'l. Bds., Elig. M.D. from Med. College of VA. Int. and res. from George Washington Univ. Hosp. Grp. or assoc. practice desired. Presently in practice. Sanford A. Greenhouse, M.D., 7076 Vista Del Mar, LaJolla, CA 92037.

INTERNAL MEDICINE

Oct. '77. Age 29. Conn. license. FLEX. Elig. M.D. from Baylor College. Int. and res. from Montefiore Hosp., Bronx. Presently on faculty at Yale Sch. of Med. Grp., assoc. or instit. practice in large or med. community. Steven P. Baughn, M.D., 537 Whitney Ave., New Haven, CT 06511.

Nephrology: Available now. Age 41. Conn. license. Passed ECFMG and FLEX. Elig. Int. from India and St. Mary's Hosp., Michigan. Res. and fellowship India. Nephrology, Michigan and Medical Coll. of VA. Grp., assoc. or instit. practice. Presently in practice. Adarsh Luthra, M.D., Uncas-on-Thames Hospital, Norwich, CT 06360.

Hematology: Jan. '78. Age 32. Nat'l. bds., cert. M.D. from Harvard. Int. and res. from Univ. of Minnesota Hosp. Presently doing fellowship at Minnesota. Grp. or academically affiliated practice in med. community. Bruce T. Lyman, M.D., 1253 W. Como Blvd., St. Paul, MN 55103.

Part-time. Available now. Age 33. Conn. license. Nat'l. bds., cert. M.D. from Univ. of Michigan. Int. and res., Beth Israel Med. Center, NY. Presently in practice in CT. Contact CSMS-IM-CRR.

Rheumatology. Dec. '77. Age 33. Cert. M.D. from Univ. of NC. Int. at Yale. Res. and fellowship at Duke. Grp. practice in large or medium community. Prefers exclusive rheumatology practice. Will consider multi-specialty group with predominant rheumatology plus some general IM. William T. Rowe, M.D., 2409 Sparwood Dr., Durham, NC 27705.

ORTHOPEDICS

Available now. Age 38. Elig. Nat'l. Bds. M.D. and int. at Toronto. Res. at Royal Victoria Hosp. Presently doing fellowship in orthopedic research. Presently in practice. Grp. or assoc. practice in large community desired. Gerald M. Seligman, M.D., 150 Brook Ave., South, Montreal, Quebec, Canada H4X 2E8.

Available now. Age 30. Elig. Nat'l. Bds. M.D. from Duke. Int. and res. at N.Y. Hospital, Cornell Med. Ctr. Also res. at Case Western Reserve Univ. Hosp. Prefers coastal areas of Stamford, New Haven, Bridgeport and Westport but will consider other areas. Grp. or assoc. practice desired. Glen D. Arvan, M.D., 35 Severance Circle Dr., Cleveland Heights, O 44118.

PATHOLOGY

Dec. '77. Age 30. Conn. license. FLEX. Elig. MD from Univ. of Bombay. Res. at St. Vincent's Hosp. Bridgeport, CT. Group practice preferred. Gopalkrishna M. Trived, M.D., 132 Hunting St., Apt. B-19. Bridgeport, CT 06606.

Jan. '78. Age 33. FLEX. Elig. 11/77. Int. from Ceylon. Res. Coney Island Hosp. and Methodist Hosp., Brooklyn, NY. Presently doing res. program from Bridgeport Hosp. Grp., assoc., instit. or indust. practice in large or med. community. Inpamani S. Arul, M.D., 766 Shepard Ave., Hamden, CT 06514.

Jan. '78.. Age 45. FLEX. Elig 12/77. M.D., int. and res. from Korea. Int. and res. Memorial Hosp., Rhode Island. Grp. or instit. practice in med. or sm. community. Won P. Chung, M.D., Memorial Hosp. Dept. of Pathology, Pawtucket, RI 02860.

PEDIATRICS

Endocrinology: Available now. Age 35. Conn. license pending FLEX, Cert. Res. at MacNeal Hosp., IL, fellowship at Nassau County Med. Ctr., LI, N.Y. Solo or grp. practice preferred. Gupta B. Kuna, M.D., 2028 Court St., Pueblo, CO 81003.

SURGERY

Early '78. Age 37. Nat'l. bds., elig. M.D. from Univ. of Buffalo. Int. and res. Maricopa County Gen. Hosp., Ariz. Res. from Nassau County Med. Center, NY. Grp. or assoc. practice in med. community. Arnold S. Fabricant, M.D., c/o 252 B. Belmar Rd., Cranbury, NJ 08512.

General Surgery-General Practice: Conn. license. Elig. M.D., from McGill. Int. and res. from St. Vincent's, Bridgeport. Presently in practice. Would like to take over active practice within 25 miles of New Haven or Bridgeport. Contact CSMS-GS-PDH.

Vascular: Age 30. Conn. license. Nat'l. bds., elig. M.D. and res. from Univ. of Oklahoma. Int. from Vanderbilt. Presently doing fellowship at Yale. Part-time assisting in surgery—or emergency room physician. Contact CSMS-VS-JMK.

Jan. '78. Age 37. FLEX. Elig. 12/77. M.D. and int. from Stanley Med. College, India. Presently doing res. at St. Barnabas Med. Center, NJ. I.N. Nayak, M.D., #526, 115 Old Short Hills Rd., West Orange, NJ 07052.

Available now. Age 33. Conn. license. Training in Singapore. Res. Baystate Med., Springfield, MA. Interested in doing E.R. work. Extensive E.R. experience. Pong Ping Cheng, M.D., 677 Bacon Circle, Springfield, MA 01109.

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IN MEMORIAM

CARIGNAN, ROLAND Z., Georgetown Univ. School of Medicine, 1940. Dr. Carignan practiced occupational medicine in the Hartford area since 1941. Dr. Carignan was formerly on the staff of the U.S. Veterans Administration Hospital in West Haven and the courtesy staff of St. Francis Hospital and Medical Center, Hartford. He was a member of the American Medical Association, the Connecticut State Medical Society, and the Hartford County Medical Association. Dr. Carignan died July 29, 1977, at the age of 65.

MARVIN, HAROLD M., Harvard Medical School, 1918. Dr. Marvin was a cardiologist in the New Haven area since 1923. He became a member of the faculty of the Yale University School of Medicine in 1921, and was made an associate clinical professor in 1933. At Yale-New Haven Hospital, he began as a visiting physician and became chief of the cardiac clinic. He served as president of the American Heart Association from 1949 to 1950, and has been a member of the association's board of directors, chairman of the executive committee, acting executive secretary and executive secretary. Dr. Marvin died August 6, 1977, at the age of 85.

MAURER, LLOYD L., Yale Medical School, 1916. Dr. Maurer was a urologist in the New Haven area since 1922, until his retirement in 1962. During 1917 and 1918 he was a 1st Lieutenant in the Medical Corps of the United States Army and in May of 1918 he was appointed to the rank of captain. Dr. Maurer became the first chief of the Department of Urology of the Hospital of St. Raphael and in the early 1950s became president of the Medical Staff of that institution. In 1962 he became a consultant to the department of Urology of the Hospital of St. Raphael. Dr. Maurer was a member of the New Haven County Medical Association, the Connecticut State Medical Society and the American Medical Association. He died August 19, 1977, at the age of 88.

SCHWARTZ, PHILIP E., Tufts University School of Medicine, 1931. Dr. Schwartz was a dermatologist in the Middlesex area since 1932. He was a general practitioner in Portland from 1932 to 1947. During that time, he served as school physician, health officer and on the Selective Service Draft Board. He was on the staff of Middlesex Memorial Hospital as chief of dermatology from 1947 to the time of his death. He also was on the staff at Connecticut Valley Hospital. He was a member of the Middlesex County Medical Association the Connecticut State Medical Society and the American Medical Association. Dr. Schwartz died August 5, 1977, at the age of 71.

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INDEX TO ADVERTISERS

Aetna Life & Casualty 650
Ayr Insurance Agency 679
Blue Cross & Blue Shield of Connecticut 662
Boehringer Ingelheim, Ltd. .... 2 & 3
Burroughs Wellcome Co. .... bet. 672 & 673
Classified Advertising 680
Colonial Bancorp., Inc. 1
Dentocain Co. 671
Elmcrest Psychiatric Institute 662
Geriatric Pharmaceutical Corp. 5, 654
Eli Lilly & Co. 6
New York Fertility Research Foundation, Inc. 680
Pennwalt Corp. .... bet. 672 & 673
Pharmaceutical Manufacturers Assoc. .... bet. 672 & 673, 673
Physicians Planning Service Corp. 680
Purepac Pharmaceutical Co. 4
Roche Laboratories .... IFC, 677, 678, IBC & BC
Roerig & Co., Div. of Pfizer Pharmaceuticals .... bet. 656 & 657
Smith, Kline & French Laboratories bet. 656 & 657

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Connecticut Medicine

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VOLUME 41 NOVEMBER 1977 NUMBER 11

scientific:

Eugene L. Ehrlich and Robert L. Fisher 681 Orthopaedic Conversion Reactions in Children and Adolescents

Daniel H. Riddick and Anthony Voytovich 684 Acquired Renal Concentrating Defect Following Demeclocycline Therapy for Infertility

Ludmil A. Chotkowski 686 Viral Hepatitis

Hastings K. Wright 689 Recent Trends in Surgery for Colo-Rectal Cancer

Arthur H. Knowlton and Bernard Percarpio 691 Palliative Irradiation in Large Bowel Carcinoma

Arthur Weinstein, Jeffrey D. Urman, Micha Abeles and Mitchell Lowenstein 693 The Chondrocalcinosis—Pseudogout Syndrome

George J. Dohrmann 696 Neuro-Oncology

special articles:

National Health Council 697 Federal Trade Commission and Health

William J. McCullough 705 Civil Commitment in Connecticut: Public Act 77-595

Marc A. Rubenstein, Howard V. Zonana and Lansing E. Crane 709 Civil Commitment Reform in Connecticut A Perspective for Physicians

Connecticut State Medical Society 719 Connecticut's Medicare B Assignment Rate

Stephen L.G. Rothman and Hirotsuga Munechika 727 Computerized Tomography in the Evaluation of an Abdominal Inflammatory Mass

J. Kevin Kinsella and Arthur Africano 729 Emergency Care and Evaluation of the Alcohol Patient (Second of Two Parts)

editorials:

Eric A. Plaut 737 The Local Physician and the Care of the Mentally Ill

departments:

Robert U. Massey 735 Reflections from the Dean's Office

Letters to the Editor:

Roy N. Barnett 738 Chiropractors and Blood Tests

James E. Finn 738 More About the Cat Scanner

William R. Richards 741 From the Executive Director's Office

general:

732 Month in Washington

738 Book Reviews

743 In Memoriam

746 Physician Placement Service

749 Physician Manpower

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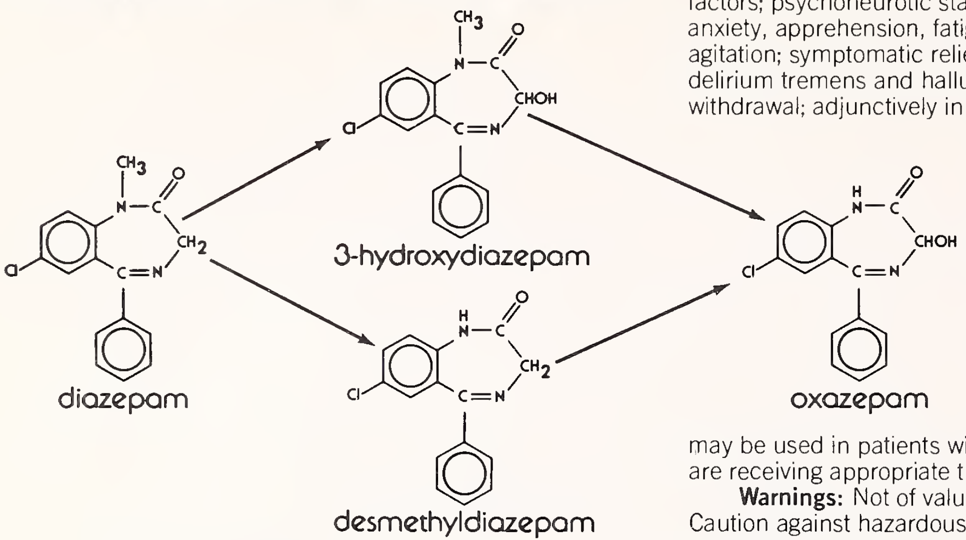

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Orthopaedic Conversion Reactions in Children and Adolescents

EUGENE L. EHRLICH, M.D. AND ROBERT L. FISHER, M.D.

ABSTRACT—Conversion reactions involving musculoskeletal symptoms occur in children and adolescents and may be severely incapacitating. Prompt diagnosis by pediatricians, orthopaedic surgeons, and other physicians caring for these children facilitates treatment. The diagnosis should rest on exclusion of possible organic etiologies and recognition of psychiatric problems. Management of severely handicapping conversion reactions by psychotherapy and physical therapy in a hospital environment is recommended.

Conversion reaction has been defined as an unconscious expression of emotional conflicts in physical symptoms.[1,5] Recent studies would indicate that conversion reaction (conversion hysteria) is surprisingly common in children and adolescents—being the primary diagnosis for 4 to 13 per cent of patients referred for pediatric psychiatric consultation.[4,7] A large percentage of conversion symptoms involve the musculoskeletal system.[4,5,7,9] Eight consecutive patients, severely incapacitated by orthopaedic conversion reactions, are described in this report. All were initially admitted to the orthopaedic service and subsequently managed by a psychiatric consultant (E.L.E.). Other patients with nonorthopaedic conversion reactions (i.e., anorexia nervosa) and mild orthopaedic functional complaints were omitted. These severe cases are presented to alert physicians of a possible psychiatric diagnosis when dealing with children and adolescents having musculoskeletal symptoms.

Case Reports (Table 1)

Case 1. T.C., an 11-year-old white boy was admitted for evaluation and treatment of limp and severe right thigh pain. The pain had begun spontaneously about one year previously. It was mild and intermittent until one month before admission. The pain then progressed dramatically such that the patient limped severely and could not attend school. Workup in another hospital 2 weeks previously revealed normal hemoglobin, sedimentation rate, serum calcium, radiographs of the pelvis and right femur, and technetium^{99m} polyphosphate bone scan. He was referred with probable diagnosis of conversion reaction.

On clinical examination, the patient had difficulty in localizing his pain. Tenderness was present in multiple areas on the right thigh and was inconsistent. Hip and knee motions were unrestricted. There were intermittent voluntary spasms of the thigh musculature. The patient limped dramatically while holding his right thigh. He was apprehensive during examination, but was quite happy while riding a wheelchair.

Investigation of the family revealed that the boy's father was a wheelchair-bound unemployed alcoholic who was severely ill with pulmonary emphysema and cirrhosis. His mother worked as a maid in a motel. The family was further supported by Welfare programs. The patient was placed in the role of caretaker for his father while his mother worked.

Conversion reaction was diagnosed on the basis of the normal workup for organic disease and the strong suggestion by history and examination that the boy's complaints were on a psychiatric basis. The patient was begun on inpatient psychotherapy and physical therapy. The latter consisted of range of motion and muscle strengthening exercises of the lower extremities and encouragement and assistance in normal walking. In psychotherapy sessions the boy was anxious and tearful. He revealed guilt feelings concerning his relationship to his parents. He was aware that against medical advice his father was continuing to drink. He kept this knowledge secret in loyalty to his father. At the same time, he realized that the drinking was contributing to his father's poor health. He was quite depressed at the prospect of his father's death.

Subsequent counselling with the patient and his parents brought the family conflicts into the open. Within 2 to 3 weeks, the patient's pain and limp disappeared completely. The boy was discharged after 5 weeks of hospitalization to continue psychotherapy on an outpatient basis.

This case illustrates a rather straightforward conversion of emotional conflict into organic symptoms. The condition was diagnosed promptly when brought to medical attention and responded rapidly to appropriate therapy.

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Case 5. J. N., a 12-year-old girl, was admitted for evaluation of severe incapacitating back pain. Her middorsal pain had begun gradually and intermittently 6 months previously. The pain was related to activity and relieved by rest. The pain progressed such that the patient was unable to sit or walk and required special tutoring at home. The pain did not radiate and was unassociated with any neurologic symptoms. She was admitted to another hospital where thorough clinical, laboratory, and radiographic investigation was negative except for the finding of some minor radiographic irregularities of the vertebral bodies suggestive of Scheuermann's disease. Her workup included routine blood studies and radiographs, IVP, GI series, barium enema, and laminograms of the spine. No definite diagnosis could be made, but an emotional problem was suspected.

The patient presented as a thin, anxious girl with a flattened affect. She was unable to walk because of pain. While standing, she resisted flexion or extension of the spine. Orthopaedic and neurologic examinations were normal. Complete blood count, sedimentation rate, latex fixation, serum chemistries, and protein electrophoresis were normal. Radiographs of the thoracic and lumbosacral spine were unremarkable. A cystometrogram was interpreted as showing a flaccid bladder, but a subsequent cystometrogram was normal. EMG study and bone scan also were normal. The patient was seen by a number of consultants who suspected a psychiatric disorder, but could not definitely rule out a neurologic lesion. Finally, a myelogram was carried out and found to be normal. Then, the consensus of all observers was that this girl manifested a conversion reaction.

Psychiatric therapy was begun slowly and superficially as it was felt that this girl might have rather serious deep-seated psychiatric problems. Also, she was seen simultaneously by physical therapists and encouraged to sit and to walk. It was felt that this girl was having difficulty coping with her developing femininity. Her parents were overconcerned about serious organic disease and effectively reinforced the patient's symptoms. During treatment, therefore, the parents were isolated from the patient. Over the subsequent 3 or 4 months, the patient showed progressive improvement in symptoms. Her affect brightened and she began to walk with a shuffling gait. Her complaints of back pain subsided. After a few successful home visits, she was discharged.

During the subsequent year, she was seen periodically for psychotherapy as an outpatient. She developed mild anorexia nervosa which cleared subsequently. When last seen one and one-half years following discharge, she was well adjusted and asymptomatic. This case presents a rather seriously disturbed child whose diagnosis of psychiatric illness was arrived at only after careful exclusion of an organic etiology.

Case 8. M. C., a 15-year-old girl, was admitted to the hospital for treatment of lower back pain. She had been followed since age 2 and one-half years for management of spastic and ataxic cerebral palsy. On previous occasions, she had been admitted for physical therapy, surgery for electrical burns of the face and heel cord contractures, and for evaluation of congenital heart disease. She was able to ambulate without crutches until one year previously. At that time, she developed severe lower leg spasms, difficult breathing, and inability to walk. Evaluation had led to the conclusion that she had a hyperventilation and anxiety syndrome. She was discharged after one month of inpatient physical therapy. A few weeks prior to admission, she developed lower back pain, progressive weakness, and difficulty in ambulating with crutches. Her pain caused her to cry at times and to miss school.

On physical examination, she ambulated poorly with a swing-through crutch gait. She had bilateral 45° hip flexion contractures. Voluntary muscle strength was poor in both legs. Bilateral ankle clonus was present. Diffuse tenderness was present in the lumbar region. Radiographs of the lumbosacral spine were negative.

There was a strong suspicion of functional overlay in this patient. While she was treated with traction in bed, she was also referred for psychiatric evaluation. In psychiatric interview, it was apparent that this girl was having difficulty adjusting to adolescence. She was incapable of forming normal peer relationships and was subconsciously using physical complaints to attract attention and sympathy, particularly from adults.

As the youngest of 4 siblings, she had felt progressively isolated as her older sisters left the home. She did not fit in well at school, especially because of her cerebral palsy disability. Therapy was directed toward playing down her physical complaint and explaining that no surgery was indicated. She showed progressive improvement in her back pain during 2 months of inpatient psychotherapy and physical therapy. She was discharged using a wheelchair at school—her most efficient means of ambulation.

She was continued on supportive outpatient psychotherapy. However, she required readmission one year later because of severe spasms of the back and legs. It was felt that she had developed an exacerbation of her conversion reaction. She again responded rapidly and effectively to inpatient psychotherapy and physical therapy.

This patient illustrates that psychiatric illness may be superimposed on organic disease. She also developed recurrent conversion reaction after initially successful treatment.

Discussion

Definitive diagnosis of conversion reaction requires 1) the recognition of a somatic symptom (motor or sensory) without apparent anatomic or physiologic basis, 2) an onset or exacerbation with an emotionally significant event, and 3) psychiatric examination revealing that the symptom is psychologically or emotionally derived.[2, 12] Conversion reactions may closely mimic organic disease and even be associated with physical changes such as contractures and disuse atrophy (Case 2).[3, 5] The psychiatric nature of the complaints in this study as in previous reports was revealed by inconsistencies on repeated examinations, departures from known anatomic or physiologic patterns, overly-dramatic features, or an unconcerned attitude ("la belle indifference") of the patient toward the symptoms.[2, 5, 10, 11] Diagnostic delay was frequently encountered in the patients under investigation and also has been noted consistently in previous studies.[5, 6, 9] In general, treatment has been more successful in patients diagnosed promptly (Table 1).[9] All authorities agree, however, that possible organic disease should be absolutely excluded—not only to avoid overlooking serious physical illness but to assist psychiatric treatment in providing confident reassurance to the patient and family that the symptoms have no serious organic basis.[2, 4, 5, 6]

Patients with conversion reactions have shown similar personalities (Table 1).[5, 9] In general, they have tended to be immature, insecure, depressed, and somewhat withdrawn. Most have shown a poor relationship to peers and unsatisfactory adjustment to their school situation.

The parents observed in this and other investigations of conversion reaction have also manifested several common characteristics.[9] There has been a high incidence of psychiatric illness in other family members. Many patients have come from broken homes. The mothers generally have been very anxious and overconcerned, while the father figures have tended to avoid responsibility. A symbiotic relation-

Table 1

SUMMARY OF CLINICAL DATA—PATIENTS HAVING ORTHOPAEDIC CONVERSION REACTIONS

Patient	*Age Sex*	*Symptom (Nature, Duration and Severity)*	*Patient's Personality*	*Family Conditions*
T. C.	11 ♂	Thigh pain and limp for one yr. Unable to walk or attend school.	Intelligent with good school record. Reactive depression to father's poor health and alcoholism.	Alcoholic, wheel-chair invalid father. Mother works as maid but family supported by Welfare.
A. B.	13 ♂	Knee pain for 8 wks. Unable to walk or attend school.	Immature, self-centered, hypochondriacal, manipulative. Poor school record.	Parents divorced. Father left home. Mother convinced of organic nature of son's complaints.
T. M.	15 ♂	Bilateral leg pain for 14 wks. Unable to walk without crutches.	Self-conscious about height. Intelligent but unable to relate satisfactorily to peers.	Parents and 2 sibs had prior psychotherapy. Father withdrawn and reserved. Mother insecure and prone to hysterical outbursts.
E. T.	8 ♀	Foot and lower leg pain for 5 mo. Unable to walk s̄ crutches or to attend school.	Masculine appearance. Manipulative and vacillating behavior.	Mother indecisive; father unable to accept responsibility. Emotional problems in 2 of 4 siblings. Poor financial circumstances.
J. N.	12 ♀	Mid-thoracic back pain for 6 mo. Bedridden.	Anxious, depressed and withdrawn. Flattened effect.	Parents overconcerned and anxious.
J. G.	18 ♀	Lower back pain for 9 mo. Incapacitated and unable to attend school.	Insecure and depressed. Drug dependent. Poor school record.	Poor communication in family. Four older siblings.
A. A.	15 ♂	Bilateral knee pain for 2 yrs. Unable to walk or attend school.	Hypochondriacal, timid, withdrawn and insecure.	Parents divorced. Natural father died—brain tumor. Mother previously hospitalized for neurotic anxiety. Considerable conflict.
M. C.	15 ♀	Spastic cerebral palsy. Lower back pain for several wks. Unable to walk s̄ crutches.	Cerebral palsy. Intelligent but isolated.	Three older siblings. Family supportive with no significant emotional problems.

ship between the family and patient frequently has existed and interfered with symptom removal.

The goals of treatment are to eliminate the conversion symptoms and prevent recurrence by providing insight to the patient as to the underlying pathogenesis of the symptoms.[3-7] Though reassurance and suggestion or hypnosis may remove symptoms in some patients,[2, 10] psychotherapy is generally advised for severely disabling conversion reactions.[4-6, 9] In this review and other studies, isolation of patient from family has been found essential for successful treatment.[4, 6, 11] The serious symptoms in our patients responded satisfactorily to hospitalization lasting 2 weeks to 4 months. A transition from orthopaedic service to psychiatric care was effected through concomitant physical therapy and psychotherapy with a minimal resistance from patient and parents.

The prognosis for conversion reaction is guarded. Half of the patients in this patient review developed recurrent conversion symptoms. A high incidence of recurrence has also been reported by others.[9]

REFERENCES

1. Forbis OL Jr. and Janes RH Jr.: Hysteria in childhood. South Med J 58:1221, 1965
2. Ford FR: Diseases of the Nervous System in Infancy, Childhood, and Adolescence, 3rd ed. Springfield, Illinois, Charles C Thomas, 1952; pp 1127-1134
3. Gold S: Diagnosis and management of hysterical contracture in children. Br Med J 5426:21, 1965
4. Herman RM and Simonds JF: Incidence of conversion symptoms in children evaluated psychiatrically. Mo Med 72:597, 1975
5. Hinman A: Conversion hysteria in childhood. Am J Dis Child 95; Part 1:42, 1958
6. Jensen RA and Wert AD: Conversion hysteria in children. J Lancet 65:172, 1945
7. Proctor JT: Hysteria in childhood. Am J Orthopsychiatry 28:394, 1958
8. Robins E and O'Neal P: Clinical features of hysteria in children, with a note on prognosis. A two to seventeen year follow-up study of 41 patients. Nervous Child 10:246, 1953
9. Rock NL: Conversion reactions in childhood: A clinical study on childhood neuroses. J Am Acad Child Psychiatry 10:65, 1971
10. Stevens H: Conversion hysteria: A neurologic emergency. Mayo Clin Proc 43:54, 1968
11. Yates A and Steward M: Conversion hysteria in childhood. A case report and a reminder. Clin Pediatr (Phila) 15:379, 1976
12. Ziegler FJ, Imboden JB and Meyer E: Contemporary conversion reactions: A clinical study. Am J Psychiatry 116:901, 1960

Acquired Renal Concentrating Defect Following Demeclocycline Therapy for Infertility

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ABSTRACT—A patient is reported who developed diabetes insipidus following demeclocycline therapy for infertility. The clinical and renal manifestations of this complication of demeclocycline therapy are presented. The differential diagnosis, laboratory evaluation required for specific diagnosis, and clinical course of the illness are described. Those using demeclocycline to treat mycoplasma infections presumed to be contributing to infertility are cautioned to be aware of this complication and to stop the medication should any aymptoms appear. It is further suggested that erythromycin be considered for treatment initially rather than demeclocycline; however, it should be pointed out that the effectiveness of erythromycin in patients with mycoplasma infections has not yet been studied. The individual practitioner should weigh the risk and benefit until such data become available.

Mycoplasma infection of the genital tract has been recognized since its culture from a Bartholin's gland abscess in 1936 by Dienes and Edsall.[1] T-mycoplasma and M. Hominis have been implicated as a factor in repeated spontaneous abortions,[2] low birth weight infants,[3] and unexplained infertility.[4-6] Because of the encouraging results reported after demeclocycline therapy in rather small numbers of patients, it has become common practice by many to give a "therapeutic trial" to couples with otherwise unexplained infertility.

This report was prompted by the development of nephrotoxicity in a patient treated with demeclocycline for an abnormal cervical factor. Polyuria, polydipsia, uremia, and weight loss resulting from the inability of the renal tubules to concentrate urine has been recognized as a side effect of demeclocycline therapy. The following report is designed to alert the clinician to this potentially serious side effect, to describe the clinical course of the illness and its management, and to suggest that Erythromycin® rather than the tetracyclines be considered in the treatment of genital infections due to T-mycoplasma thought to be contributing to infertility.

Patient Report

This patient is a 32-year-old white female Para O with primary infertility of seven years duration. A complete infertility evaluation including basal body temperature curves, endometrial biopsy, semen analysis and hysterosalpingogram was entirely normal except for the cervical mucous and post-coital test. The cervical mucous persistently contained many white blood cells at mid-cycle in spite of good ferning and spinnbarkeit, and the post-coital test done just prior to ovulation was repeatedly abnormal showing only occasional live sperm 4 hours after coitus. An *in vitro* test mixing sperm and mid-cycle mucous revealed a loss of motility of the sperm by three hours after mixing. Because of the abnormal mid-cycle cervical mucous and post-coital test, a presumptive diagnosis of genital mycoplasma infection was made and both husband and wife were begun on 150 mg of Declomycin (obtained from her local pharmacy) four times each day from day 5-15 of a 28-day cycle. The expiration date of the Declomycin was January 1976. Both husband and wife weighed approximately 150 pounds. On the ninth day after beginning the treatment, the patient developed nausea and vomiting and the medication was stopped immediately. On the fourteenth day after beginning Declomycin she called complaining of anorexia without nausea, vomiting, or diarrhea; severe thirst; frequent urination; low back pain without temperature elevation; and a twelve-pound weight loss over the previous four days. She had had no nausea, vomiting or diarrhea since stopping the Declomycin. Her husband was well without any unusual symptoms.

Physical examination revealed an ill-appearing woman in no acute distress. BP=100/60, P=90, T=98.4°F, R=16. The general physical and pelvic examinations were entirely normal except for signs of mild dehydration. Her laboratory studies are contained in

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Table 1

LABORATORY STUDIES

Date	(Time)	Na+ (Meq/L)	K+ (Meq/L)	Urine OSM (Osm/L)	Spec. Grav.	BUN (mg%)	Comments
6/13				1010	31		Spot urine
6/14	8 am	4	34	343	1010	26	Overnight fluid deprivation
6/15	6 am	3	53	395	1014		Overnight fluid deprivation plus 5 U Pitressintannate
	7 am	2	47	400	1012		
	8 am	2	45	446	1014	17	
	9 am	2	46	421	1014		
6/30	8 am	115	107	799	1028		Overnight fluid deprivation

the table. In addition, on admission, Na=134 mEq/L, K=4.4 mEq/L, Calcium=4.9 mEq/L, CO_2 =28 mEq/L, Cl=109 mEq/L, uric acid=5.9 mg%, Creatinine=1.2 mg%, Glucose=115 mg%, Serum Osm=287 mOsm/L. The urine sediment was unremarkable, pH6 no glucose, protein, ketones or blood were present.

By the third hospital day her BUN had decreased to 17 mg%, her electrolytes were normal, her polydipsia and appetite were improved. She was discharged one week later. Her weight had stabilized, her polyuria and polydipsia were much improved, and her spot morning urine specific gravity was 1.028. Two weeks after discharge or three weeks after the onset of the illness she was symptom free, and all renal functions had returned to normal.

Discussion

It has been recognized for many years that the tetracyclines may, under certain circumstances, have adverse effects on renal function. Gabuzda demonstrated aggravation of weight loss and negative nitrogen balance as well as an increase in NPN in previously undernourished patients given tetracycline. Faloon had postulated the presence of a catabolic action as well, and it has been suggested that the effects of tetracycline on protein synthesis may actually be reflected in a generalized anti-anabolic effect.[7] Outdated tetracycline has been felt to be a cause of adult Fanconi syndrome with excessive renal losses of glucose, potassium, phosphate and amino acids. Renal failure has been precipitated in tetracycline-treated patients who undergo Methoxyflurance anaesthesia.[9] It has now been substantiated by both prospective and retrospective case studies that demeclocycline can produce an acquired form of nephrogenic diabetes insipidus.[10] The mechanism of this effect has been elucidated both *in vivo* and *in vitro* and appears to involve cyclic AMP generation and action with parallel observations derived from metabolic studies in patients, studies with toad urinary bladders, and with preparations of renal medulla.[11]

Classical nephrogenic diabetes insipidus is an exceedingly rare condition, felt in many cases to be X-linked with full expression in males. The manifestation is usually in infancy.

It is doubtful that this patient, previously well, had the classical syndrome. Other causes of polyuria and submaximal concentrating ability include potassium depletion, solute diuresis (as in diabetes mellitus), hypercalcemia, amyloidosis, myeloma, chronic renal disease, and the recovery phases of acute obstructive uropathy and acute tubular necrosis. Classical central diabetes insipidus resulting from an inability to synthesize or secrete antidiuretic hormone must also be considered.

Our patient clearly demonstrates, in addition to polydipsia, polyuria transient azotemia, weight loss and fatigue, a marked inability to concentrate her urine after an overnight deprivation of fluids whether or not exogenous antidiuretic hormone is provided. Additionally, normal electrolytes, blood glucose, calcium and phosphorus, subsequent normal BUN and creatinine, and absolutely unremarkable urine sediments convince us that we are dealing with a reversible, acquired nephrogenic diabetes insipidus with the characteristics of those cases previously described.

Despite the fact that the patient's recovery is complete, there is insufficient data to assume that this effect is entirely benign in otherwise healthy patients, much less a population of individuals undergoing fertility studies in whom the likelihood of concurrent endocrine dysfunction might be greater.

Although it is tempting to generalize from the remarkably high incidence in existing studies that this effect is very common, such a conclusion is not yet warranted with the data available. However, until proven otherwise, we would suggest that awareness of this effect be maintained and that demeclocycline be discontinued should polyuria and polydipsia occur.

Finally, it should be emphasized that the therapeutic value of demeclocycline in the treatment of infertility associated with mycoplasmas is far from established. In fact, Harrison *et al.* have recently studied 120 patients with culture-proven mycoplasma infection and otherwise unexplained infertility.[12] They were unable to demonstrate any benefit of demeclocycline therapy in the treatment of primary infertility when compared with untreated controls in spite of the irradication of mycoplasmas (on the basis of culture) in the treated group.

REFERENCES

1. Dienes L, Edsall G: Observations on the L-organisms of Kleinberger. Proc Soc Exp Biol Med 36: 740, 1937.
2. Driscoll SG, Kudsin RB, Horne HW, Scott JM: Infections and first trimester losses: Possible role of mycoplasmas. Fertil Steril 20:1017, 1969.
3. Klein JO, Buckland D, Finland M: Colonization of newborn infants by mycoplasmas. New Engl J Med 280:1025, 1969
4. Gnarpe H, Friberg J: Mycoplasma and human reproductive failure. Amer J Obstet Gynec 114:727, 1972
5. Horne HW, Hertig AT, Kundsin RB, Kosasa TS: Subclinical endometrial inflammation and T-mycoplasma: A possible cause of human reproductive failure. Int J Fertil 18:226, 1973
6. Horne HW, Kundsin RB: Kosasa TS: The role of mycoplasma infection in human reproductive failure. Fertil Steril 25:380, 1974.
7. Lepper MH: Metabolic effects of tetracycline. Ann Intern Med 58:553, 1963
8. Gross JM: Fanconi Syndrome (adult type) developing secondary to the ingestion of outdated tetracycline. Ann Intern Med 58:523, 1963
9. Kuzucu EY: Methoxyflurane, tetracycline and renal failure. JAMA 211:1162, 1970
10. Hayek A. Ramirez J: Demeclocycline induced diabetes insipidus. JAMA 229:676, 1974
11. Dousa TP, Wilson DM: Tetracyclines: Interference with ADH-responsive cyclic AMP system in human renal medulla. Clin Res 21:75, 1973
12. Harrison RF, Blades M, Louvois J, Hurley R: Doxycycline treatment and human infertility. Lancet 1:605, 1975

Viral Hepatitis

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The following is a report on a recent symposium on viral hepatitis held at the University of Connecticut Health Center, co-sponsored by the State Department of Health and the University, and presented by the twelve participants as listed.

Etiology

Viral hepatitis is probably the one major viral disease affecting man that, as yet, has not come under control by immunization or other measures. Ever since the discovery in 1965 by recent Nobel laureate, Dr. Blumberg, of a lipoidal protein found in the serum of an Australian aborigine and hence named the Australian antigen (HBAg), a mass of information has accumulated regarding this vexing and complex disease. A listing of current abbreviations illustrates this point. It is now known that viral hepatitis is not only caused by viruses A and B, and probably similar non A and B viruses such as C and D, but also by other viruses such as the heterophile positive, infectious mononucleosis virus (Epstein-Barr) and the viruses of herpes simplex, yellow fever and rubella. As yet unpublished heretofore it was clearly shown in the Mansfield hepatitis A virus outbreak that both viruses A and B may be present in the same patient at the same time. Thus the hepatitis B carrier state does not protect against a superimposed hepatitis A infection. That viral hepatitis is a formidable disease is indicated by the estimated 300,000 cases annually occurring nationally and by the report of as many as 1000 cases in certain years in Connecticut. Furthermore these cases may represent only the tip of the iceberg.

Epidemiology

It is now known that both hepatitis A and B can be transmitted through both the fecal-oral and parenteral routes. However, hepatitis A is felt to be transmitted primarily through the fecal-oral, and hepatitis B by the parenteral route. Incubation period is 15 to 50 days for hepatitis A and 40 to 180 days for hepatitis B. Hepatitis B has been found in practically every body fluid such as blood, tears, saliva, joint fluid, feces, urine, seminal fluid, vaginal secretions and ascitic fluids. Hepatitis A is often transmitted through water or food such as shellfish as well as ordinary direct family or institutional member contact routes. Infectivity is directly dose related; also, a larger oral than parenteral dose is required, suggesting viral destruction by the stomach.

The public health problem created by the estimated worldwide 112 million chronic hepatitis B carriers at

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any given time is enormous. No immediate practical solution to this worldwide problem was offered at the symposium except for the now practiced precaution of pretesting all transfusion blood for hepatitis B virus antigen. There is no known similar chronic carrier state for hepatitis A, and in most instances the blood and stool fail to show hepatitis A virus after the prodromal and acute phases of the illness have passed. Unfortunately, approximately 50% of transfusion hepatitis is neither A nor B virus related. The American Red Cross blood program rejects all donors with a past history of hepatitis regardless of the type.

The basic structure of hepatitis A and B has been clarified by the use of immune electron microscopy. Recently a 27 nanometer virus-like antigen particle has been identified in both human and animal subjects, now designated as hepatitis A antigen (HAAg). Subsequent to this discovery, diagnostic tests are now able to identify both hepatitis A antigen and antibody (anti-HAAg). Unfortunately, as yet neither of these tests is available for general diagnostic use outside research centers.

Hepatitis B virus has been studied extensively in both the human being and animal. Electron microscopy reveals the presence of three major morphological forms or particles, all of which seem to be part of the hepatitis B virus. These particles have been named the Dane particles. The whole particle (HBAg), or 42 nm sized particle, consists of an outer coat called the surface antigen (HBsAg), some 20 nm in size and an inner core (HBcAg), some 28 nm in size. Antigenically it is the surface antigen that is associated with infectivity. Found in this outer surface coat are additional subtype antigenic specificities referred to as a, d, y, w, and r. A similar antigenic determinant termed e may be of core origin. The significance of these sub types has, as yet, not completely been determined.

Treatment

The treatment of viral hepatitis is entirely symptomatic and supportive. Hepatitis A is usually a relatively benign disease without a chronic state as found in hepatitis B. Fulminant hepatitis was felt originally to be most frequently caused by type A; however, there is now some question as to whether previously reported fulminant cases were actually type A, and diagnosis primarily of exclusion, or whether some other virus was involved. Hepatitis B is the more serious infection both from the standpoint of acute and chronic morbidity and mortality. Treatment with artificial liver support systems such as charcoal, hemoperfusion and liver transplants appears to be still in the research stage. Controlled studies on patients with fulminant hepatitis show that no currently available therapeutic modality has had a significant influence on survival.

The use of steroids in acute fulminant hepatitis is still under investigation but it is possible that steroids may produce more harm than good. On the other hand, steroids are of distinct value in the treatment of chronic agressive hepatitis due to hepatitis B infection.

A major advance in the therapy of chronic hepatitis is the use of liver biopsy as a means of differentiating chronic persistent hepatitis (CPH), a form of hepatitis unlikely to progress, from chronic aggressive hepatitis (CAgH), a form of hepatitis likely to progress to cirrhosis and liver failure. Liver biopsy in chronic aggressive hepatitis is characterized by portal and periportal inflammation, loss of hepatocytes with fibrous band bridging, and piecemeal necrosis. Chronic aggressive hepatitis may be monitored by repeated liver biopsy and treated with prednisone accordingly.

Prevention

The Mansfield outbreak indicated that it was possible to control the spread of hepatitis A infection with the use of isolation measures and immune serum globulin (ISG). The Mansfield Training School hepatitis outbreak consisted of 55 cases of hepatitis A occurring during May through August, including staff as well as clients in an institution of 1,100 residents.

No common source of infection was found for these cases. Contaminated food, or possibly an initial case, spreading virus from person to person was considered to be the mode of transmission.

Quarantine measures were instituted and all staff and clients were given Immune Serum Globulin (gamma globulin). These measures were followed by an abrupt decline in cases after mid-August. Conclusions reached were that despite the major difficulties involved, the combination of quarantine and gamma globulin prophylaxis was able to control the outbreak.

In hepatitis A, fecal shedding and the danger of spread appear to be of short duration and confined to the acute phase of illness. Hepatitis B, on the other hand, because of its prolonged carrier state presents a frustrating public health challenge, particularly in the management of the asymptomatic carrier state found more frequently in health personnel such as physicians, dentists, laboratory and blood transfusion technicians, as well as those involved in the drug scene. At the present time there is no way of eradicating this chronic carrier state. For those exposed to hepatitis A early administration of immune serum globulin (ISG) has been found effective in the prevention of clinical manifestations of the disease. The spread of the disease is also probably lessened in this manner. The patient should be isolated during the acute and prodromal phase of hepatitis A and B. Thorough hand washing and toilet cleanliness by both patient and contact is vital. The duration of viremia and intestinal viral shedding is in hepatitis A short and confined to the acute stage. On the other hand, the spread of hepatitis B, because of the chronic carrier state, is a most challenging problem, as stated above. The careful handling of blood and body fluids is most vital in hepatitis B. Sexual contact and even kissing are additional potential means of spread.

A new immune serum globulin (HBIG) containing high titers of hepatitis B antibody is soon to be released. In the meantime, since standard ISG was recently found to have contained high levels of hepatitis B antibody since 1972, standard globulin may be of value in the prevention or modification of hepatitis B for those, for example, accidentally inoculated by blood with needles or transfusions and for newborn infants of hepatitis B carriers. ISG may also be of value in preventing non A and B transfusion hepatitis, now felt to be the cause of much transfusion hepatitis. This latter use of ISG awaits further investigation.

Vaccine

Failure to cultivate virus A in tissue culture has prevented the development of a type A vaccine. However, a type B vaccine has been developed and studied in human beings, and human clinical trial studies have so far been encouraging.

Conclusions

From the information presented at the symposium, it is clear that a massive amount of investigation is being carried out on viral hepatitis, particularly in the basic research laboratory area. Identification of some of the viruses involved, their basic structure, and means of testing for both hepatitis A and B antigens and antibodies are now available. It is shown for the first time that hepatitis A and B can be present simultaneously and that HB carrier state does not protect against a superimposed hepatitis A infection. The hepatitis B carrier state must be followed, preferably by liver biopsy, for the development of the chronic aggressive state which should be treated with adequate prednisone therapy.

In the area of diagnosis, hepatitis A is no longer a disease diagnosed only clinically by exclusion. Unfortunately, the laboratory tests involved are not as yet universally available.

Finally, application of the basic research findings to the clinical area shows promise of a better ISG for the prevention of hepatitis B, soon to be released, and a hepatitis B vaccine for active immunization in the near future.

Lexicon of Abbreviations and Terms Currently Used in Viral Hepatitis:

IH = Infectious hepatitis
SH = Serum hepatitis
HAV = Hepatitis A virus (formerly "infectious hepatitis", now short incubation hepatitis, a RNA parvovirus, a 27 nm sized particle)
HAAg = Hepatitis A antigen
Anti HAAg = Antibody to hepatitis A virus
PHxAg = Phoenix antigen, presumably the HAV, found in Phoenix, Arizona
MS-1 = A strain of hepatitis A virus
MS-2 = A strain of hepatitis B
HBV = Hepatitis B virus (formerly "serum hepatitis", now long-term incubation hepatitis virus)
HBAg = Hepatitis B antigen (Australian antigen also designated as HAA (Hepatitis associated antigen) a 42 nm particle (Dane particle)
HBsAg = Hepatitis B surface antigen, a 20 nm sized particle
HBcAg = Hepatitis B core antigen, a 28 nm sized particle
Anti-HBsAg = Antibody to surface antigen
Anti-HBcAg = Antibody to core antigen
HBsAg a, d, r, w, y = Antigenic determinants of HBsAg subtypes
E Antigen = A new antigen found in chronic persistent or chronic aggressive hepatitis B
D.P. = Dane particles, the 42 nm HBAg and the 20 nm HBsAg (surface antigen) and 28 nm sized HBcAg (core antigen)
Non A and Non B Hepatitis = Hepatitis occurring in a large percentage of transfusion hepatitis, not due to A or B viruses
E.B.V. = Epstein-Barr virus, associated with infectious mononucleosis
CMV = Cytomegalovirus
IEM = Immunoelectronmicroscopy
SGPT = Serum glutamic pyruvic transaminase
SGOT = Serum glutamic oxalacetic transaminase
RIA = Radioimmunoassay
CF = Complement fixation
PHA = Passive hemagglutination
RPHA = Reversed passive hemagglutination
AGD = Agar gel diffusion test
CEP = Counterelectrophoresis
CIEP = Counterimmunoelectrophoresis
IA = Immune adherence
DNA = Desoxyribonucleic acid
RNA = Ribonucleic acid
HSA = Human serum albumen
nm = Nanometer or one billionth of a meter
HBIG = Hepatitis B immune globulin
ISG = Immune serum globulin (standard G.G.)
CAgH = Chronic "aggressive" hepatitis, a form of

hepatitis likely to progress, calling for prednisone therapy

CPH = Chronic "persistent" hepatitis, a form of hepatitis unlikely to progress, not requiring therapy

"Bridging" = Fibrous bands found in liver biopsies as indicators of CAgH and forerunner of cirrhosis

Prednisone = a common steroid used in treatment of CAgH

FH = Fulminant hepatitis, a severe form of hepatitis carrying a 40% to 90% mortality

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Recent Trends in Surgery for Colo-Rectal Cancer

HASTINGS K. WRIGHT, M.D.

Standard techniques for detecting and removing colo-rectal cancers have been available for 50 years. Have cure rates improved significantly in that time? Secondly, are there new techniques which promise more effective treatment in the future of this second most common cancer in the United States?

Changes in Survival in the Last 50 Years

Surgical techniques have not changed significantly, except for the development of techniques to isolate the tumor before resection. There is also little evidence that patients with colon cancer are seeing a surgeon earlier in the course of their disease. However, patients with rectal cancer are seeking treatment earlier in Connecticut. The percentage of surgical specimens with Dukes A or B lesions in one hospital was 37 percent in the 1930's, but rose to 57 percent in the 1960's.[1] Apparently, the symptoms of rectal cancer prompt patients to see a physician earlier now. However, the symptoms of colon cancer may be too non-specific in early stages to raise suspicion in the minds of laymen.

The five-year survival rate for rectal cancer has increased from 30 percent to almost 50 percent in the last 30 years. However, the evidence suggests that this increased survival rate is due in large part to better pre- and post-operative care of patients undergoing abdomino-perineal resections for rectal cancers. This increase in survival rate occurred early after World War II, and coincided with the introduction of modern blood banks and antibiotics into surgical practice. Thus, while surgeons are undoubtedly curing more rectal cancer patients because they see more early rectal cancers, most of the improvement results from the fact that surgeons now are simply better at getting patients out of the hospital alive after curing the cancer.

New Surgical Techniques Which May Have Promise

A. Colonoscopy

The trans-colonoscopic removal of polyps greater than 1-2 cm. in diameter which lie above the reach of the sigmoidoscope is a significant improvement in surgical technique over trans-abdominal trans-colonic polypectomy. The mortality rate of colonoscopy

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approaches zero in contrast to 2-6 percent transabdominally and morbidity is strikingly less.

However, it is unlikely that this new technique will cure many more colon cancers. It is primarily useful in removing pedunculated polyps, only 2-4 percent of which are cancers microscopically. The remaining 96-98 percent almost certainly have no potential for turning into colon cancers.[2] Unfortunately, the differential diagnosis between cancerous polyps and benign polyps now can only be made with a microscope, necessitating removing them all. Perhaps the group most benefited will be the group without cancer which previously was subjected to a major surgical operation with a significant mortality rate in order to rule out cancer.

An argument still persists among surgeons about the further definitive treatment of patients with focal cancer in polyps removed with the colonoscope. The evidence now available from prospective studies suggests that further treatment by resection of the involved colon segment and its lymphatic bed can be limited to those few cases where the focal cancer actually invades the polyp stalk.[3]

B. No-Touch Technique

Investigations three decades ago demonstrated that physical manipulation of colon cancers at surgery spread cancer cells within the colon lumen and also into the portal venous system. Although the percentage survivability of these freed cells has not been demonstrated, since that time surgeons have routinely isolated colon cancers between tapes before manipulation. Turnbull has carried this technique one step further by adding transection of the mesentery of the involved segment before manipulation of the tumor—the so-called "no-touch" technique.[4] Five-year survivals in patients with Dukes C colon cancers with only regional spread reached 58 percent, a significant improvement in survival over results achieved with standard techniques. If these results can be achieved in mixed populations by other surgeons, then this technique promises to be a significant advance in colon cancer surgery.

C. Extended Resections for Colon Cancer

The "second look" operations after "curative" resections of colon cancer demonstrated that very few patients could be cured of recurrences by such procedures or would have been cured had the original procedure been more extensive. Almost all recurrences occur either locally in the anastomosis, in adjacent tissue in pelvic dissections, or beyond the limits of practical dissection. Thus, it appears that radical resections are no improvement over segmental resections as now practiced by most surgeons.

However, it has been suggested that total colectomy and ileo-proctostomy be performed in all patients with colon cancers to remove the 2-3 percent of synchronous occult colon neoplasms not detected before resection, and to prevent new primary cancers from developing in a potentially susceptible colonic mucosal bed. This idea is not new, and was acted upon by Wangensteen in the 1950's. Total colectomy was as safe as segmental colectomy, and the vast majority of patients quickly adapted to develop acceptable bowel habits. However, the long-term survival rate in this group was not significantly higher than in groups treated by conventional segmental resections.

One potential advantage of total colectomy and ileoproctostomy, or total colectomy proximal to colon cancers combined with an adequate resection distally, is the rarity of anastomotic recurrences after these operations.[5] The rate of anastomotic recurrence after segmental colon resections is reported to be 5-15 percent, particularly after low anterior resections. Why the inclusion of the ileum in an anastomosis appears to be beneficial has not been determined, but this technique may help to reduce the incidence of this fatal complication. Another possible beneficial technique is the use of iodized sutures in anastomoses. Such sutures have recently been released for use in humans, and if the results in man are similar to those in animals in reducing the incidence of anastomotic recurrences, their use will become routine.

Improvement in Life Style of Colostomy Patients

Patients believe that rectal cancer surgery necessarily means a colostomy. However, the need to construct a permanent colostomy is becoming less for patients with rectosigmoid and high rectal lesions. Evidence is accumulating that good local control of such cancers can be achieved by low anterior resection, thus limiting proctectomy to patients with mid or low rectal cancers.

When permanent distal colostomies are necessary, they can now be managed easily by simple dietary techniques which constipate the patient and render the colostomy continent for solids. An appliance need not be worn. These advances have been achieved by lay colostomy patients themselves, and have only recently been appreciated by professionals. Studies also continue on the physiology of more proximal colostomies which cannot be made continent by available techniques. It is hoped that a technical break-through will occur similar to the development of continent internal pouches for ileostomy patients.

Combined Therapy of Colo-Rectal Cancers

At the present time approximately one-half of patients will have a recurrence within two years after resection of all visible colo-rectal cancer. Only one-third will be alive three years later. Thus, there is an obvious need for new techniques for treating colo-rectal cancer.

Major prospective studies of combined treatment of colo-rectal cancer with surgery and various combinations of chemotherapy and radiotherapy are now starting. Initial results show low morbidity from combined treatment in ambulatory patients with good nutrition. Therefore, it is hoped that informed surgeons and patients will be willing to participate in these current studies in large enough numbers to ensure an early answer to the question of whether or not such therapy will improve survival rates in this common disease. Reliance on surgery alone will not be sufficient in the future.

REFERENCES

1. Thomas WH, Larson RA, Wright HK, et al. Analysis of 830 cases of rectal adenocarcinoma. Conn Med, 33:569, 1969
2. Spratt JS Jr, Ackerman LV, and Moyer CA: Relationship of polyps of colonic cancer. Ann Surg, 148:682, 1958
3. Shatney CH, Lober PH, Gilbertsen VA, et al. The treatment of pedunculated adenomatous colo-rectal polyps with focal cancer. Surg, Gynec and Obstet, 139:845, 1974
4. Turnbull RB, Kyle K, Watson FR, et al. Cancer of the colon: the influence of the no-touch isolation technique on survival rates. Cancer, 18:82, 1968.
5. Wright HK, Thomas WH, and Cleveland JC: The low recurrence rate of colonic carcinoma in ileocolic anastomoses. Surg Gynec and Obstet, 129:960, 1969

Palliative Irradiation in Large Bowel Carcinoma

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The value of radiation therapy in the relief of symptoms in patients with advanced gastrointestinal cancer is well documented. In a study of 102 such patients treated palliatively at the Yale-New Haven Hospital,[1] the major symptoms of locally advanced disease were bleeding, pelvic and perineal pain, diarrhea, weight loss, constipation, tenesmus and urinary symptoms. These symptoms of local tumor occurred in 42 patients with recurrent disease and 51 patients who were primarily inoperable or unresectable, including eight on a medical basis. The remaining nine patients had symptoms due to distal metastasis.

All but nine of these patients received over 3000 rads at 900-1000 rads per week or its equivalent. Seventy-nine of 93 patients (85%) receiving this amount of radiation obtained relief of their symptoms. In seven of these 93 patients the results were unknown. Williams[2] and Wang and Schulz[3] have both reported similar relief of symptoms in 65-85% of all patients treated. Bleeding, the most alarming symptom, stopped in 90% of Williams' cases and 95% of those of Wang and Schulz. Stearns[4] reported relief of hepatic pain due to massive and painful enlargement of the liver in 55% of the patients treated.

Relief of symptoms does not appear related to the amount of radiation delivered as long as a minimum of 2000-2500 rads is given over 2-2½ weeks (Table I). Stearns[4] has advocated these limited doses so that patients can safely be retreated if their problems recur. Even with these moderate doses of radiation, 77% of the patients had relief of symptoms due to localized disease. His excellent responders remained in relief of their symptoms for an average of 13 months while his good responders remained in relief for nine months. Wang and Schulz[3] have strongly advocated a somewhat higher dose of radiation to produce a more extended effect. In their series, with doses between 2000 and 3000 rads, only 12% of their patients had relief of symptoms lasting over six months. In the range of 4000-5000 rads over 4-5

Table I

RELIEF OF SYMPTOMS VS. DOSE
102 PATIENTS

	1000-2000 rads	*2000-3000 rads*	*3000-4000 rads*	*4500-6000 rads*
Relief	2	4	57	22
No relief	2	1	6	1
Unknown			6	1

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weeks, 58% had a satisfactory response lasting beyond six months.

For many years a colostomy has been the treatment of choice for advanced local disease of the pelvis in patients whose future was limited. Following a colostomy, however, pain, bleeding or tenesmus may either continue or develop and a palliative excision of the rectum has been advocated by some. An objective of our palliative radiation was to delay or dispense with colostomy in these patients. Of our 102 patients, 64 had undergone a colostomy before referral to our department or had one planned immediately following radiation, and three had palliative treatment outside the pelvis with no local problems. Thus, 35 patients were eligible for a future colostomy. Twenty-five (71%) of these never required a colostomy although all died of their disease. In Williams'[2] large series of patients, 43% avoided a colostomy because of the local tumor response of radiation therapy.

The complications of palliative therapy are infrequent if the amount of radiation is limited to 4500 rads in 4½ weeks. The usual complications occur acutely as nausea, vomiting or diarrhea and are readily controlled by medication or daily dose rate reduction. These problems are transient and rapidly disappear shortly after the conclusion of treatment. For the palliative treatment of local gastrointestinal lesions, the high dose (6000 rads) used by Williams[2] is not recommended because of the severe long-term complications. These included fistulas in 6%, radiation necrosis in 5% and marked pelvic fibrosis in 17%.

As expected for such a group of palliatively treated patients, the long-term survivors of our entire group of 102 patients were few, although five patients did survive five years or longer (Table II). Williams[2] likewise reported a 5% five year survival among his patients treated palliatively while Wang and Schulz[3] had a 10% long-term survival among those with disease limited to the pelvis. It is of interest that five of these long-term survivors had received doses between 3500 and 5000 rads. It would appear that in selected cases, at least, the administration of more than the moderate dose of 2500 rads advocated by Stearns[4] may result in long-term control and survival.

In conclusion, a very high percentage of patients with advanced gastrointestinal cancer can expect complete or partial relief of their symptoms with palliative irradiation. A significant number may avoid a colostomy and a small but definite percentage may gain extended survival if treated with intermediate doses of radiation therapy.

Table II

CUMULATIVE SURVIVALS
102 PATIENTS

Months	*Percent*
0- 6	67
10-12	39
13-18	25
19-24	17
25-36	6
37-48	6
49-60	5

REFERENCES

1. Urdaneta-Lafee Nelson, Kligerman MM and Knowlton AH: Evaluation of Palliative Irradiation in Rectal Carcinoma. Radiology 104:673-677, Sept. 1972
2. Williams IG and Horwitz H: The Primary Treatment of Adenocarcinoma of the Rectum by High Voltage Roentgen Rays (1,000 IV.). Amer J Roentgen 76:919-928, Nov 1956
3. Wang CC and Schulz MD: The Role of Radiation Therapy in the Management of Carcinoma of the Sigmoid, Rectosigmoid, and Rectum. Radiology 79:1-5, July 1962
4. Stearns MW Jr, Whiteley HW Jr, Leaming RH and Deddish MR: Palliative Radiation Therapy in Patients with Localized Cancer of the Colon and Rectum. Dis Col and Rectum 13:112-115, March-April 1970

The Chondrocalcinosis—Pseudogout Syndrome

(Calcium Pyrophosphate Dihydrate Deposition Disease)

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ABSTRACT—Calcium pyrophosphate dihydrate crystal deposition disease is yet another cause of both acute mono or oligoarthritis and chronic inflammatory polyarthritis. It can be diagnosed definitively by joint radiography in conjunction with polarizing microscopy of synovial fluid. There are a number of metabolic diseases which can be associated with CPPD deposition and these should be considered in the differential diagnosis of a patient with chondrocalcinosis or pseudogout. Treatment unfortunately is non-specific but is effective with the use of intra-articular corticosteroid injections and oral anti-inflammatory agents.

Introduction

In 1962, McCarty et al coined the term pseudogout to describe patients with gout-like syndromes in whom rhomboid-shaped crystals were noted in joint aspirates.[1] These crystals are distinguishable from the needle-shaped monosodium urate crystals found in gouty synovial fluids not only by their shape but also by their weakly positive birefringence when viewed under compensated polarized light. X-ray diffraction and chemical analysis have defined these crystals as calcium pyrophosphate dihydrate (CPPD).

Clinical Presentation

Since its first description, CPPD deposition disease has been recognized as an imitator of other arthritides as well as of gout. Several clinical patterns have been described:

Pseudogout (Actue mono or oligoarticular arthritis)

This pattern, which is present in 25% of patients with clinical evidence of CPPD deposition, is characterized by intermittent attacks of arthritis in one or a few joints followed by periods during which the joints are quiescent. Knees are involved in more than 50% of the acute attacks.

Polyarticular

A fairly symmetrical polyarthritis is seen in approximately 5% of patients. Because of the simultaneous involvement of many joints with prolonged periods of pain and swelling, the clinical picture is very similar to that of rheumatoid arthritis.

Degenerative

"Pseudo osteoarthritis," affecting about 50% of patients, is characterized by chronic progressive arthritis of large joints. Occasional superimposed acute attacks may occur in some patients.

Asymptomatic chondrocalcinosis

A study of the elderly in a home for the aged showed that more than 25% of that particular population had asymptomatic chondrocalcinosis.[2] This may prove to be the most common manifestation of CPPD deposition disease.

Radiological Features

CPPD is most often deposited in hyaline and fibrocartilage (Figure 1) but may also occur in synovium, joint capsule and ligaments. The joints

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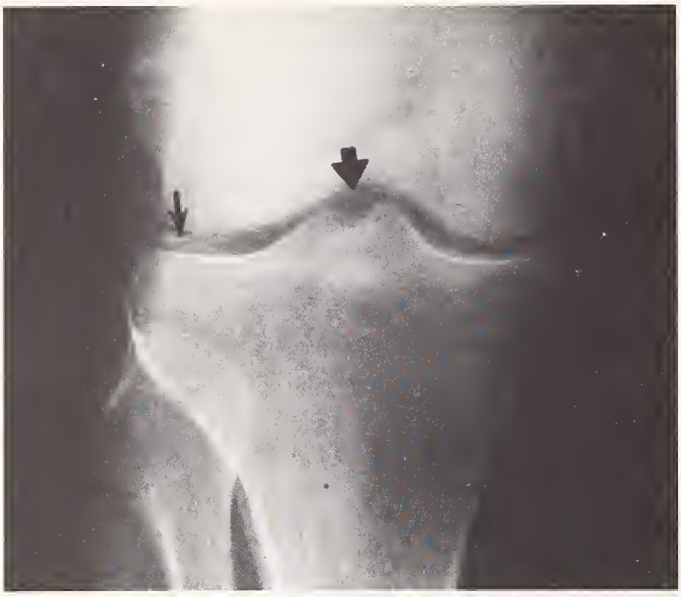

Figure 1

Chondrocalcinosis of the Knee

Linear calcification of the hyaline articular cartilage (large arrow) and coarse calcification of the meniscal fibrocartilage (small arrow).

most commonly involved clinically and/or radiologically are the knees, wrists, hips, shoulders, MCP's, symphysis pubis and intervertebral discs. Knees are nearly always involved and thus any investigation for CPPD should include radiographs of these joints.[2] Degenerative changes ("osteoarthritis") are commonly found in involved joints although a distinguishing feature from primary osteoarthritis is involvement of the radiocarpal joint of the wrist.[3] Occasionally severe destructive changes producing Charcot-like joints may be seen.

Study of Synovial Fluid

Synovianalysis can yield strikingly variable results from highly inflammatory and even pseudoseptic type fluids to mildly inflammatory fluids with low white cell counts and good viscosities.

The key to the diagnosis is the observation of rhomboid-shaped weakly positive birefringent CPPD crystals by polarizing light microscopy. It is sometimes necessary to make careful repeated searches of centrifuged synovial fluids to find the crystals.

Prevalence

The reported prevalence of calcific deposits in articular and meniscal cartilage of the knee has varied from 2.2% to 27.6%.[4] Part of this wide range is due to differences in roentgenographic technique (ordinary screen filter versus industrial type M film) and in the age range of the populations investigated. An autopsy study revealed that 3.3% of 215 cadavers had knee cartilage calcifications identified specifically as CPPD.[5] At the Mayo Clinic the prevalence of diagnosed pseudogout was 0.9 cases per thousand compared to a prevalence of 1.5 - 2.2 per thousand for gout.[6]

Familial Types

Although the vast majority of patients with pseudogout show no evidence of a hereditary pattern, some familial aggregation of CPPD deposition disease has been noted. Zitnan and Sitaj studied twenty-four patients with pseudogout from five families and a dominant inheritance pattern was suggested.[7] Prolonged observation has revealed two distinctive phenotypic patterns: a polyarticular form usually beginning in the third decade which gradually affects the spine and most peripheral joints and a mild oligoarticular form which develops in the older age groups.

Associated Diseases

Diabetes mellitus, hypertension and azotemia occur frequently in patients with chondrocalcinosis but not more so than in an age-matched population of patients with osteoarthritis.[8] The association of chondrocalcinosis with certain metabolic disorders is more convincing. CPPD deposition is seen not infrequently in patients with hyperparathyroidism[9] and it has been reported in up to 41% of patients with hemochromatosis.[10] Furthermore, arthritis may be the first clinical clue of the previously unrecognized metabolic disturbance.[11] Other metabolic disorders associated with chondrocalcinosis include acromegaly, Wilson's disease, ochronosis, hypothroidism and hypophosphatasia. Chondrocalcinosis may also be associated with neuropathic arthropathy and osteonecrosis of the femoral condyles.

Differential Diagnosis

Monoarticular arthritis

Acute monoarticular pseudogout often occurs after surgery or trauma or during an acute medical illness. In this situation the differential diagnosis commonly includes acute gouty arthritis and septic arthritis. Occasionally, gout and pseudogout may be present simultaneously.

Polyarticular arthritis

CPPD deposition disease can involve the MCP joints and wrists and may be associated with an elevated sedimentation rate, positive rheumatoid factor (in low titer) and erosive disease. It may therefore be confused with rheumatoid arthritis and furthermore chondrocalcinosis and true rheumatoid arthritis may coexist.

Degenerative arthritis

Radiological degenerative joint changes occur frequently in association with CPPD deposition and the association is felt to be more than coincidental.

Another type of arthritis associated with paraarticular calcification is calcium hydroxyapatite deposition disease seen most often, but not exclusively, in patients with chronic renal failure and secondary hyperparathyroidism who are on chronic hemodialysis.[12]

Pathogenesis

The mechanisms of crystal deposition in cartilage, of crystal release into the articular cavity, and of the subsequent inflammatory reaction are poorly understood. CPPD crystal formation is thought to occur first in articular cartilage. While levels of serum calcium and alkaline phosphatase are usually normal in these patients in the absence of hyperparathyroidism, increased levels of parathyroid hormone have been found although the significance of the finding is not understood. Elevated levels of inorganic pyrophosphate (PPi) and decreased amounts of alkaline phosphatase have been demonstrated in synovial fluids of patients with chondrocalcinosis. However, elevated levels of PPi are also found in osteoarthritis and correlate well with the degree of degenerative change seen radiologically.[13]

Certain substances e.g. ethylene diamine tetracetic acid (EDTA) can lower ionized calcium levels and thereby increase the solubility of CPPD crystals. Direct infusion of EDTA into the knee joints of patients with chondrocalcinosis in an attempt to decrease the amount of chondrocalcinosis, paradoxically led to attacks of pseudogout in the treated knees.[14] This finding led to the hypothesis of crystal shedding. The CPPD crystals lying in the cartilage matrix are postulated to be in equilibrium with ionized calcium and pyrophosphate in synovial fluid. Lowering the concentration of calcium in synovial fluid might therefore result in dissolution of the crystals at the surface, making them smaller, and allowing them to shed into the synovial fluid.[4] This hypothesis could account for the higher incidence of pseudogout attacks post surgically and especially post parathyroidectomy since serum (and possibly synovial fluid) levels of calcium drop significantly under these circumstances.[6]

Injection of CPPD crystals into the joints of animals results in an acute inflammatory synovitis. There is evidence in vitro that CPPD crystals adsorb gammaglobulin onto their surface which thus could promote their phagocytosis by polymorphonuclear leukocytes and monocytes.[15] The resultant discharge of lysosomal enzymes and chemotactic factors from these cells into the synovial fluid could augment and perpetuate the inflammation.

Treatment

The breakthrough resulting from the discovery of allopurinol and uricosuric agents in the treatment of chronic gouty arthritis is yet to be realized in CPPD deposition disease. There are no specific drugs available for the prevention or treatment of acute attacks or for changing the course of the chronic disease. Acute attacks may be effectively treated with antiinflammatory drugs such as phenylbutazone 100 mg qid or indomethacin 25 mg qid. However, arthrocentesis and intraarticular injection of costicosteroids provides both synovial fluid for confirming the diagnosis and rapid, effective relief of pain and inflammation and is the treatment of choice for attacks of mono or oligoarthritis.

Therapy of chronic polyarticular disease is not unlike therapy for rheumatoid arthritis with physical measures such as heat, splinting, rest and exercise, and antiinflammatory drugs such as salicylates in doses of 3.0 - 5.0 gm daily or newer non-steroidal antiinflammatory agents like ibuprofen or naproxen. Gold therapy, antimalarials and systemic corticosteroids have not been shown to be effective in treating this condition and are not indicated.

REFERENCES

1. McCarty DJ, Kohn NN, Faires JS: The significance of calcium phosphate crystals in the synovial fluid of arthritic patients: the "pseudogout syndrome". I. Clinical aspects. Ann Intern Med 56:711-737, 1962
2. Ellman MH, Levin B: Chondrocalcinosis in elderly persons. Arthritis Rheum 18:43-47, 1975
3. Resnick D, Utsinger PD: The wrist arthropathy of "pseudogout" occurring with and without chondrocalcinosis. Radiology 113:633-641, 1974
4. McCarty DJ: Calcium pyrophosphate dihydrate crystal deposition disease—1975. Arthritis Rheum 19:275-285, 1976
5. McCarty DJ, Hogan JM, Gatter RA et al: Studies on pathological calcifications in human cartilage. I. Prevalence and types of crystal deposits in the menisci of two hundred fifteen cadavera. J Bone Joint Surg 48A:309-325, 1966
6. O'Duffy JD: Clinical studies of acute pseudogout attacks. Comments on prevalence, predispositions and treatment. Arthritis Rheum 19:349-352, 1976
7. Zitnan D, Sitaj S: Chondrocalcinosis articularis. II. Genetic study. Ann Rheum Dis 22:153-157, 1963
8. McCarty DJ, Silcox DC, Coe F et al: Diseases associated with calcium pyrophosphate dihydrate crystal deposition. A controlled study. Amer J Med 56:704-714, 1974
9. Bywaters EGL, Dixon A St J, Scott JT: Joint lesions in hyperparathyroidism. Ann Rheum Dis 22:171-187, 1963
10. Dymock IW, Hamilton EBD, Laws JW et al: Arthropathy of haemochromatosis. Clinical and radiological analysis of 63 patients with iron overload. Ann Rheum Dis 29:469-476, 1970
11. Gordon DA, Little HA: The arthropathy of hemochromatosis without hemochromatosis. Arthritis Rheum 16:305-312, 1973
12. Moskowitz RW, Vertes V, Schwartz A et al: Crystal-induced inflammation associated with chronic renal failure treated with periodic hemodialysis. Amer J Med 47:450-460, 1969
13. Silcox DC, McCarty DJ: Elevated inorganic pyrophosphate concentrations in synovial fluids in osteoarthritis and pseudogout. J Lab Clin Med 83:518-531, 1974
14. Bennett RM, Lehr JR, McCarty DJ: Crystal shedding and acute pseudogout. An hypothesis based on a therapeutic failure. Arthritis Rheum 19:93-97, 1976
15. Kozin F, McCarty DJ: Protein adsorption of monosodium urate, calcium pyrophosphate dihydrate, and silica crystals. Relationship to the pathogenesis of crystal-induced inflammation. Arthritis Rheum 19:433-438, 1976

Neuro-Oncology

GEORGE J. DOHRMANN, M.D., PH.D.

There has been an increased interest in the research and treatment of cancer. Less common but important malignancies are those of the central nervous system, the majority being brain tumors. In Connecticut the rate for brain tumors is approximately 5 per 100,000; therefore, the individual practitioner sees few of these patients each year. Despite their relative infrequency, tumors of the brain pose particularly difficult problems in diagnosis and treatment.

Various individuals in Connecticut have an interest in tumors of the nervous system but little contact exists between them. The need for such interaction was recognized and in 1975 the Yale Neuro-Oncology Group was founded as an affiliate of the Yale Comprehensive Cancer Center. Persons with basic science and/or clinical science backgrounds and with an interest in some aspect of brain tumors were invited to become members.

The purpose of the Neuro-Oncology Group is to function as a forum for exchange of information and ideas apropos of central nervous system neoplasms as well as to serve as a basis for closer cooperation in the various clinical fields represented and, thereby, to lead to improved co-ordinated care of the brain tumor patient. This is accomplished in part during monthly meetings where presentation and informal discussion periods take place. As funds permit guest speakers from various parts of the country representing numerous fields in medicine are invited to address the Group.

Members of the Neuro-Oncology Group represent fields as diverse as neurochemistry, virology, pharmacology, cancer epidemiology, radiation therapy, medical oncology, pediatric oncology, neurology, pediatric neurology, neuroradiology, nuclear medicine, neuropathology and neurosurgery. Presently all members of the Group are on the faculty of the Yale University School of Medicine.

Over the past year the topics covered have included: brain tumor classification; transplantation and tissue culture of brain tumors; chemotherapy of central nervous system malignancies; oncogenic viruses and neural tumors; immunology of brain tumors; computerized tomography of intracranial mass lesions; radiobiology of brain tumors; epidemiology of central nervous system neoplasms in children; treatment of glioblastoma multiforme; endocrine aspects of pituitary tumors; and clinical behavior of childhood ependymal neoplasms.

Last year the Group offered a Neuro-Oncology Course covering current concepts in the biology, epidemiology, diagnosis and treatment of brain tumors. This was attended by persons from many fields including primary care, the clinical neurosciences, oncology, radiation therapy and public health amongst others. The broad interest of the topic was shown by the fact that course participants came from many parts of the United States and as far west as Australia and as far east as Denmark and Switzerland. The degree of participation illustrates the widespread albeit selective interest in neuro-oncology.

The Neuro-Oncology Group was restricted to a smaller size during the first two years to determine the amount of interest and degree of participation. It was received enthusiastically and much interest and support were shown by the members as well as by the administration of the Comprehensive Cancer Center. It is now being expanded to include members of the medical community from the entire state. Persons in the basic medical sciences and in the clinical sciences in the State of Connecticut with an interest in neuro-oncology are encouraged to contact the Yale Neuro-Oncology Group about membership. For further information: Dr. George J. Dohrmann, Director, Yale Neuro-Oncology Group, 333 Cedar St., New Haven, CT 06510

Through increased exchange of ideas and new information about brain tumor biology, epidemiology, diagnosis and treatment, the lot of the patient with an intracranial neoplasm should be improved.

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The Federal Trade Commission and Health

The following in-depth report prepared by the National Health Council, Inc. provides keen insight into the extensive investigative activities of the Federal Trade Commission. The FTC has issued at least 70 subpoenas to medical organizations as part of its often-vague investigative thrust. Among those subpoenaed have been the AMA, numerous state and county medical societies, medical specialty boards, and medical specialty societies.

Summary

The Federal Trade Commission (FTC) has taken more actions in the past eighteen months which affect delivery and financing of health services than at any time in its 60-year history. Most actions have not been concluded and remain in some stage of consideration. But the FTC health effort is young and its pace is quickening. With parallel activities from the Justice Department, Federal regulation of medical care through anti-trust laws is likely to increase. Moreover, an important object of government attention is the professions and their economic relationships. Because the FTC does not have constituent ties with these groups its interventions often are based on legal analyses which are freshly developed. They frequently strike at the heart of established patterns of professional behavior, such as fee setting arrangements and peer review of educational institutions. In one instance where FTC action has reached some conslusion—outlawing use of relative value scales by some professions—there are indications that legislation may be offered to rescind the results. Whether FTC efforts will lead to lower costs, increased competition, and better health care in the long run is difficult to perceive now. But it is clear that Federal regulatory activities in the health delivery system are no longer confined to HEW's health financing and planning programs, and they represent another aspect of increasing consumer involvement in the delivery and financing of health services.

Powers of the FTC

The FTC is an independent regulatory commission created in 1914 to protect consumers and businessmen from unfair competition and trade practices. Its five commissioners are appointed by the President with Senate approval; there is currently one vacancy. The chairperson, currently Calvin Collier, is selected by the President and serves at his pleasure. (Collier is a former general counsel of the FTC.) The Commission's meetings are now open to the public as a result of the 1976 "Government in the Sunshine Act" (P.L. 94-409).

As an independent regulatory agency the FTC shares a unique governmental status with other independent bodies. The independence derives in part from the agencies' close working relationship with Congress, with laws assuring very limited White House interference on budgetary and legislative matters. Moreover, legal powers granted the agencies obscure traditional separation of administrative, legislative, and judicial authority.

The FTC in particular has the broadest statutory base for action among all regulatory bodies, and unequalled powers "to represent itself in court, enforce its own orders, or conduct its own litigation. . . ." Sanctions can include voluntary agreements, consent orders, injunctions, referrals to Justice for criminal action, and heavy civil monetary penalties. Agreements can include requirements that damages or refunds be paid. In addition, the FTC is the only regulatory agency with specific authority (up to $1 million) to pay expenses of persons or groups who would not otherwise be able to participate in rule-making proceedings—and participation includes the right to cross-examine witnesses. The current appropriation is $500,000.*

FTC authority has grown since 1914 and now includes a variety of somewhat differing laws covering both broad economic ills, such as industrial concentration, and specific retail practices and products, such as advertising and flammable fabrics. In general, its tasks include three basic law enforcement responsibilities:

Report prepared by the National Health Council, Washington, D.C. Barney Sellers, Editor. Debra Shapiro, Research Assistant.

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*Note, however, that a recent opinion of the Comptroller General states that other regulatory agencies may also provide similar financial assistance in certain circumstances.

- To preserve competition by acting against "unfair methods of competition." This authority is outlined in Section 5 of the FTC Act. The Bureau of Competition (289 employees) in the FTC is primarily responsible for its enforcement. The provision is intended directly to aid businessmen and indirectly the consuming public.
- To protect consumers from "unfair or deceptive acts or practices." Section 5 also covers this authority. The Bureau of Consumer Protection (340 employees) is primarily responsible for its enforcement. It is intended to cover actions which directly affect the buying public. Courts have liberally interpreted this FTC mandate to include anti-trust and related issues.
- To enforce specific consumer protection statutes covering such items as wool and fur products labeling, fair packaging, fair credit, truth-in-lending, and warranty protection. At least seven statutes are involved here, including public health cigarette smoking legislation. The Bureau of Consumer Protection usually is responsible for these statutes as well.

In addition, the FTC Act also grants broad authority to the Commission to gather and report information on corporations and industries. Legislative history indicates this power was intended to provide the President and Congress with information about inappropriate concentrations of industrial economic power, but it can justify any major investigation.

One statute limits the powers of the FTC and its authority over health-related activity: the McCarran-Ferguson Act (15 USC 1011) generally leaves to the states the power to regulate the insurance business and, in particular, allows the FTC Act to cover that area only "to the extent that such business is not regulated by State law."

This *Note* concentrates on the first two authorities, those described in Section 5 of the FTC Act. These provisions provide legal authority for the FTC to review a wide range of health activities.*

The FTC and Health: Why?

The FTC is involved in health services for a variety of reasons; some have much to do with the history and changing character of the agency, rather than with health specifically. The most important factors are the impact of increased consumer activism; the importance of recent Supreme Court decisions effecting professions; congressional support for increased FTC activity; professions; congressional support for increased FTC activity; and the economic character of our health delivery system.

Increased Consumer Activism

During much of its history the FTC has suffered a variety of complaints that it has been either unable or unwilling to do its job. Two reports in a long series of public analyses seem to have had the most effect. In 1969 a team of students under Ralph Nader's direction released a highly critical report noting, as some others had before, the existence of poor management, sluggish enforcement, involvement in trivia, low quality staff, etc. Subsequently, President Nixon asked the American Bar Association to conduct another study and its conclusions were at least as critical. In calling for reform and an end to study the ABA said:

> "Further temporizing is indefensible. Notwithstanding the great potential of the FTC in the field of anti-trust and consumer protection, if change does not occur, there will be no substantial purpose to be served by its continued existence."

The reports had an effect, and their impact in part reflected a growing consumer influence. Early in 1970 the FTC started on a course which has lead to marked changes in its management capability, activism on behalf of consumers, ability to attract quality staff, and general growth. Between 1971 and 1976 the agency's budget more than doubled. Its $53 million annual budget now supports 1700 staff, about one-quarter of whom are in eleven regional offices. Though the agency is plagued by relatively high turnover at top levels, it has become—in contrast to prior years—an attractive place to work for professionals. Generally, the staff is younger in age and tenure than ever before. Most attorneys working on health-related issues, for example, have been with the agency for two to three years.

In the words of one nationally regarded attorney specializing in FTC work, the agency's concern with consumer issues is now "paramount." Although consumer criticisms of the FTC still continue, they nevertheless reflect an assessment that the FTC is a changed agency. To the extent that a relatively secretive law enforcement agency can have a constituency, in the case of the FTC it clearly includes, more than ever, consumers both in general and in a more organized sense. One of the groups which provides advice and stimulation in the health field, for example, is Ralph Nader's Health Research Group.

Recent Supreme Court Cases

In the past two years the Supreme Court has had before it important cases relating to advertising and price competition in the professions. The cases have been brought by private parties, two aided by the Public Citizen Litigation Group. They have successfully argued against established patterns of professional behavior. The Anti-trust Division of the Department of Justice—which started anti-competition litigation against lawyers, accountants, real estate brokers, and engineers several years ago—has either joined these cases or acted afterward to expand their potential impact.

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*The vagueness of the Section 5 language has led to two different complaints. Targets of FTC investigations have attacked the "fishing expeditions" of preliminary subpoenas issued by the Commission. One large drug company, for example, recently claimed it would take 95 person-years and $2 million to respond to the agency's initial inquiry. On the other hand, consumer critics of the agency have decried its tendency to get involved in "trivial matters," rather than issues which have potential for substantially influencing market behavior.

In 1974 a unanimous Supreme Court, speaking through the Chief Justice, outlawed minimum fee schedules established by the Virginia State Bar Association. (Bar rules are usually enforced by state courts.) In *Goldfarb v. Va. State Bar* the Court characterized this system as "a classic illustration of price fixing" and concluded there was no congressional intent to exempt "learned professions" from anti-trust legislation.

In June 1975 the FTC proposed a trade regulation rule, which has the force of law, to allow retail pharmacies the right to advertise prescription drug prices. It followed later that year with a series of actions concerning advertising in the health field (see chronology in part two). In May 1976 the Supreme Court decided a consumer suit which challenged state restrictions on advertising of prescription drug prices. In a 7-1 vote it overturned the state prohibitions. It did so on First Amendment grounds by concluding that commercial speech is constitutionally protected from state restrictions. (The FTC is now deciding whether that case eliminates the necessity for their proposed rule on the same subject.)

In June 1976 Justice sued the American Bar Association under the Sherman Anti-Trust Act to knock down restrictions on professional advertising. A trial is now set for mid-1977. In July 1976 the Court ruled in *Cantor v. Detroit Edison* on an unrelated case which further reduced state regulatory immunity from federal anti-trust action. Finally, in December 1976 the Justice Department demonstrated its continued interest in the issue by urging the Supreme Court in the pending *Bates v. Arizona* case* to outlaw a state prohibition on advertising by lawyers.

An important part of the current FTC health program is consistent with and was spurred by these decisions, especially the 1974 *Goldfarb* case and the May 1976 drug advertising case. The Court decisions have freed the FTC to act against professions in general, and health professionals in particular, by removing from professional practices a legal patina which previously shielded them from review.

Congressional Support

Although there have been legislative efforts to limit the impact of FTC actions, Congress has generally been supportive of increased FTC activity. In December 1974 the 93rd Congress approved an FTC Improvement Act which codified and expanded certain agency powers, including enforcement authorities. In addition, in the past five years Congress has substantially increased the agency's budget. And, through the House Subcommittee on Oversight and Investigations, it has pushed for increased and more efficient FTC enforcement activity. In two days of oversight hearings in 1976, for example, the Subcommittee concentrated on FTC delays and on misallocation of resources.

Although no attention was paid to the health field specifically, public statements from Chairman John Moss prior to the hearing and comments in the Subcommittee's October regulatory reform report specifically noted "very promising" investigations and proposed rules in the health area. But these observations reflected an awareness rather than deep member interest. The future may change that. The Subcommittee is organized to cover a limited number of areas and these include both health and regulatory reform. There are indications that some effort may be made in 1977 to blend these two interests to promote more FTC health activity.

In short, the Subcommittee has had an effect on the agency mainly through general oversight encouraging more vigorous exercise of FTC powers on behalf of consumers.

Economic Character of Health Services

FTC officials indicate that certain perceived characteristics of our health care system clearly were, and are, important to the agency's decision to take action. These include:

- The proportion of GNP consumed for health services is very large and continues to grow, therefore making health services an obviously important sector in the economy.
- The inflation rate for health and medical care services is unusually high, prompting the agency to question whether unjustified "artificial" constraints operate to raise prices.
- Many other characteristics of the system appear to be disproportionately controlled or influenced by relatively few participants; these characteristics include demand for services, product information, and market entry and participation by practitioners.
- The system is so structured that cost consciousness is virtually non-existent.
- In short, the controls inherent in a competitive, knowledgeable, free market system do not appear to operate in the delivery of health

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*In June 1977, the Supreme Court held that the state rule that restricts advertising by lawyers as formulated by the Arizona Supreme Court was unconstitutional as an infringement on their First Amendment rights.

services; and, says the FTC, it should seek to correct that situation as much as possible.

The FTC Health Care Program Overview

No public statement exists which describes what the FTC health care program is. Indeed, one should not expect it from a law enforcement agency. From public and some nonpublic actions taken by the agency, however, we can deduce what the FTC's fundamental program objectives are. The chronology in part two provides an overview and details all public health-related actions taken by the agency, since its health program started in mid-1975, as well as several nonpublic actions. The list is not all-inclusive; other, nonpublic activities are continuing. It is apparent that the FTC is concentrating on certain kinds of practices, however. These include:

- Restrictions on advertising of health products and services. Actions have been taken with regard to prescription drugs, physician services, eyeglasses, and ophthalmic services. Most actions here concentrate on proposed trade regulation rules (TRRs) drafted by the Bureau of Consumer Protection to outlaw unfair or deceptive acts or practices, including those protected by state law.
- Price-fixing. Actions include investigations into the effects of AMA ethical standards; use of relative value scales by both specialty and medical societies; and Blue Shield-physician relationships.
- Health manpower practices. Actions include investigations into AMA influences over entry into the medical profession, including accreditation of medical schools, and effects of restrictions on the scope of practice of allied health and other professionals; restrictions imposed on psychologists by JCAH accreditation power over hospitals; and occupational licensing.
- Competitive restrictions. Includes investigations into prohibitions on employment of optometrists or opticians by retailers, and other retail restraints on sellers of ophthalmic goods and services; acts or practices which inhibit the development of HMOs or other alternatives to the fee-for-service model; restraint of trade by drug and hearing aid firms; state laws which may inhibit pharmacists from providing lowest cost drugs; and laws which may inhibit sale of dentures directly to the public from labs.
- Deceptive advertising. Includes a recently concluded action against egg producers who made a deceptive health claim; and product claims in advertising prohibited by the FDA in labeling.

Justice Liaison

The Anti-trust Division at the Department of Justice and the Bureau of Competition at the FTC have very similar responsibilities. Special agreements exist to avoid duplicaiton. The primary distinction between the Division and the FTC is that the latter has a broader mandate to investigate unfair acts and practices, especially as this has been interpreted by the courts, and a wider array of legal tools to use in seeking remedies. A similar pattern of activity has existed to the extent both have initiated actions in the past several years against certain professional practices deemed anti-competitive.

A primary block to additional Justice activity in health appears to be bureaucratic: the anti-trust section with primary health responsibilities is overburdened with a suit against IBM, and unable to initiate other major actions. A proposal to shift responsibilities for health and other professions from that section has been sitting in the office of the Assistant Attorney General for some time; if it is approved, an unknown prospect now, it could mean increased activity in health.

Currently, the key health case involves an action against use of relative value scales by the American Society of Anesthesiologists. A Justice complaint has been brought and proceedings are now in pre-trial discovery. A trial is due in mid-1977. Justice will be alleging that use of the scales constitutes an illegal "conspiracy in restraint of trade" in violation of the Sherman Act.

Relative Value Scales

The FTC has taken steps to secure discontinuance in the use of relative value scales (RVS) on the basis that they constitute a price-fixing scheme developed through professional health associations. Although initial steps have concentrated on specialty societies, investigations in the early stages now indicate that the agency will also look at state medical societies as well. Thus far, the FTC has been successful in its efforts. Indeed, consent agreements signed with the specialty groups noted below constitute the first conclusive results of the FTC's health program.

Professionals subject to past investigations and now bound by consent agreements to stop using the RVS include radiologists, orthopedic surgeons, obstetricians, and gynecologists. (Justice is, as noted above, proceeding in court against anesthesiologists.) In addition, preliminary investigations by regional offices of the FTC have begun on state medical societies in California, where the RVS were first developed, and Minnesota.* While a representative of the California society reports "they have no intention" of abandoning what they consider to be a "proper system," their New York state counterparts have stopped using RVS on their lawyers' advice that recent FTC actions outlaw them. Indeed, that state association has also advised its county member societies not to mediate differences between insurors and individual practitioners for fear of being accused of fee-setting.

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*The Minnesota State Medical Society and its county medical associations have signed a consent agreement to stop using their RVS.

There seems little difference of opinion among all concerned that RVS *can* be used with a conversion factor to establish or maintain fees. The disagreements appear to develop mainly about how they are *in fact* used. The consent orders negotiated thus far by the FTC imply their creation and existence violates the law.

Government health officials seem of a mixed mind about the FTC effort. CHAMPUS, according to FTC staff, has supported its efforts. Medicare officials note that RVS "could be used as a price-fixing scheme" but find the system useful in coding and terminology for claims processing, and for filling gaps in information about what reasonable and customary charges are in an area. On the other hand, one key official responsible for making policy regarding RVS observed that the information could be compiled through other sources if RVS were totally eliminated.

Although differences of opinion still exist, at least one point of view—that RVS serves legitimate purposes for practitioners and insurors other than for setting or maintaining fees—appears for the moment to have settled comfortably on Capitol Hill. Senate staff expect revised Talmadge Medicare-Medicaid reform legislation to include a provision allowing the use of RVS by participating practitioners under certain circumstances: where prices are not set for each RVS unit, and where the scale is developed in such a manner as to accurately reflect relationships between services, rather than to maximize income. In the House, where the issue has not been addressed yet by Ways and Means members, one key health professional staff person characterized the FTC actions as "bizarre" and intimated that the Committee would be receptive to the Senate proposal.

Focus on the AMA

The American Medical Association is a prime target of FTC investigation. It is the subject of publicly announced complaints and inquiries that cover alleged impediments to advertising; restrictions on price competition; and inappropriate influences on entry into, and practice in, the field. Moreover, as noted above, FTC regional offices are securing records now to investigate the use of relative value scales in two state medical societies, California and Minnesota; the former is the first society to use the system. The allegations strike at the heart of the economic side of organized medicine and, as such, are viewed with considerable apprehension by other professional associations—including those outside the field of health. FTC officials indicate the AMA is a target of inquiry because of its predominant position in the health field, and because they hope action here—which may not necessarily be duplicated against other associations—will serve as a precedent for other groups in similar circumstances. In the words of one official, the agency feels it is "breaking new ground" because for the first time they are challenging established professional patterns which appear to control education of professionals, scope of practice, and supply of practitioners.

The *Goldfarb* case was a key element in FTC decisions to act. Although FTC officials make vague references to other professions being "looked at," there are no other publicly announced inquiries of a similar nature now.

In contrast to FTC use of trade rules proposed through its Consumer Protection Bureau in other advertising cases, the agency is investigating AMA practices as a professional association. The Bureau of Competition, which is conducting the studies and making the complaints, does not usually use the proposed rulemaking route as a method of securing compliance. It can seek specific agreements to redress past practices which allegedly violate the law, and include agreements which prohibit those acts in the future.

The AMA sees itself as the subject of a quick and unfair study with no prior notice by the FTC regarding what the alleged violations are. In contrast to multi-year investigations in other actions, says a key AMA official in the case, the FTC spent six weeks going through AMA files before filing a complaint. AMA representatives say their principal sources of information have been three conferences prior to the administrative trial scheduled for June 6, 1977. Moreover, the AMA says its position was never to prohibit advertising, but only soliciting, "a lawful and proper function." In addition, the AMA says it knows little more about the manpower aspects of the FTC inquiries than what it has read in press releases: "nothing else has been filed, nothing else exists which they can respond to."

At least one portion of the FTC health manpower investigation of the AMA, however, has been spelled out in detail: this concerns a November 1976 written comment by the Bureau of Competition to the U.S. Office of Education objecting to the continuation of the Liaison Committee on Medical Education as the voluntary accrediting body for the nation's medical schools.

Medical School Accreditation: The LCME

The Liaison Committee on Medical Education (LCME) was formed in 1942 when the Association of American Medical Colleges (AAMC) joined the AMA Council on Medical Education which formerly was accrediting medical schools. Its responsibility is to provide assurance to society that medical school graduates are competent, and to assure medical school students that their education will be useful and valid. The LCME may accredit, dis-accredit, or place medical schools on probation. These actions result from survey teams visiting and evaluating every medical school at least once every seven years.

The LCME is one of 69 officially recognized voluntary accrediting agencies. More than 30 are in a variety of health fields, including medicine, allied health professions, preventive medicine, and nursing. In accordance with Federal health manpower education legislation, Federal dollars cannot flow to support any medical institution which is not accredited by an agency recognized by the U.S. Office of Education in DHEW. The LCME has been the voluntary agency recognized by O.E. to accredit medical schools. Its continuation in that role was due to come routinely before an O.E. advisory body this past December. In preparation for that meeting, O.E. solicited an FTC comment on the proposal of the LCME to continue as the accrediting body. O.E. asked for the comment because they had become aware of the FTC health manpower investigation which included AMA involvement in accreditation.

On November 11, 1976, the Bureau of Competition wrote "we believe the LCME's petition should be denied." The argument was not that any specific section of FTC legislation was being violated, but that O.E. accreditation criteria were not being met by the LCME. The FTC argued that the AMA relationship with the LCME is so close that the latter lacks autonomy, cannot ensure against conflicts of interest, and—as an ancillary complaint—may fail to assure due process. The net result could be, said the FTC, "limiting entry into the medical profession;" depriving some of the public of access to medical services; and ultimately raising the prices of such services. The FTC was careful to note, however, that it was not claiming the potential for bias was in fact used:

> "we do not—and need not—assert that the AMA or its representatives have in recent years acted improperly with respect to accreditation decisions. The issue is whether there is a conflict, an incentive to act improperly which might be perceived by the public as undermining the fairness of the process."

The FTC letter has been widely distributed to all voluntary accrediting agencies. It is being reviewed by the Office of General Counsel in DHEW. The LCME requested, and was granted, a postponement of its advisory committee review until March 1977 in order to prepare a reply to the letter.

The advisory body that reviews accrediting applications for O.E. reports its conclusions to the Commissioner of Education. In over 300 actions in the past its recommendations have been followed. The FTC is an informed and interested third party in regard to the LCME application for continued status, but O.E. does not legally owe it any preferred treatment. When an FTC objection was entered about accreditation of proprietary post-secondary education in 1974 approval by O.E. was deferred for nine months—but was ultimately granted. In that instance, as in this one, a variety of factors have to be taken into account by the HEW officials and their advisors as they consider the LCME petition, a variety large enough to either deny or accept the LCME petition on several different grounds.

In addition, O.E. announced in late November that it intended in January 1977 to propose for public comment revised criteria for accrediting bodies, with public hearings due in February. O.E. officials judge that even if the FTC does not make a formal appearance at the hearing, its letter is likely to provoke comments on the same three questions it raised, as well as the more general issues involved.*

Observations

- The FTC has demonstrated in a relatively short time a significant ability to intervene into established patterns of behavior in the delivery and financing of health services. Based on a relatively facile ability to question these patterns of behavior, the agency has established itself as a force which can serve interests both within and outside the health care system.
- It is difficult to assess whether changes in behavior and professional practice encouraged by the FTC will have long term significant economic effects. In the past, law enforcement has not been an effective means for encouraging change in the health care system in part because of structural characteristics of the system. But because the FTC is challenging some of those characteristics its success rate may be different.
- FTC activity has been increasing in health, with resources being added regularly. A large staff, in government terms, is not necessary to produce a steady stream of legal activity, but increases are likely to continue, and to be buttressed by actions from the Anti-trust Division of the Department of Justice. From the public's point of view, these agencies are likely to stimulate a regular series of actions unflattering to health professionals who earn their living from the delivery or financing system.
- Though clearly not true in all specific instances, the fundamental attempt of the FTC to increase competition in the health field reflects a primary concern in Congress and DHEW with keeping down health costs. However, formal communication and development of joint policy has been virtually nonexistent, with the exception of attempts to foster HMO development.

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*The Office of Education has denied the request of the FDA and has continued the present accrediting status of the LCME.

- Specific actions taken by the FTC reflect, in part, an attempt by the agency to overcome past criticism that it has concentrated on minor "retail" problems, not sufficiently important to effect an entire industry. By proposing a series of trade regulation rules and starting investigations of organized medicine, the agency is seeking to overcome that image in the health field.

- Approaches adopted by the agency reflect its very broad statutory authority and its inherent professional character: its actions are based on economic analysis and expressed in legal actions. This quality has produced a conflicting result: its actions sometimes reflect a simplistic understanding of health system issues, yet simultaneously appear to raise very legitimate questions about who does what in the delivery system.

- The statutory base of the FTC is in striking contrast to limited regulatory mechanisms in existence at HEW. The latter by comparison are very carefully drawn, more precise in their attempt to set specific limits on government activity, and frequently developed with the active participation of health professionals. The reverse is true at the FTC.

- Health professionals can no longer assume they are protected by voluntarily established ethical standards and complementary state laws and regulations. Both are prime subjects of FTC scrutiny. The FTC views their investigative subjects as businessmen in a profitable industry. No segment of the industry now seems immune from some future investigation.

- FTC actions can affect not only relations between consumers of health services and providers, but relations between different health professions.

- The AMA complaint and investigation are likely to have significant impacts on other professional associations. There is some indication that similar broad investigations of health professional associations may not be mounted pending the outcome of the AMA inquiry. The process may take several years to complete, especially if the case is contested, as seems likely.

- The McCarran-Ferguson Act appears to be preventing some investigations the FTC would like to consider, e.g. of the Blue Cross Association. Some consideration may be given within the FTC to seeking an amendment to that legislation.

- The accreditation issue, provoked by the FTC challenge to the Liaison Committee on Medical Education, will likely be a heated topic of consideration in 1977. There are two related points here. First is the question of whether bias has to be proved in fact, or whether the structure and relationships of the accrediting agency are sufficient to warrant denial under existing O.E. criteria. The answer goes directly to the heart of the voluntary peer review accrediting system. The LCME should have no problem in proving bias has not existed in fact: medical schools and their enrollments have grown dramatically since the LCME was created, and 1975-76 is a record year. The FTC, however, is seeking to establish that appearances of conflict of interest, especially those created by formal ties to economic interests, do not serve the public interest and violate existing accreditation criteria. This same argument has been made, in the last two years especially, by other critics of the existing accreditation process in all fields.

The second point concerns the proposed revised O.E. criteria due for comment this month: whether or not the LCME petition is accepted, purely by chance the FTC has written its objections at a time when the opportunity for changing established behavior patterns—patterns challenged on O.E. terms, not FTC grounds—are up for discussion. The likelihood is that O.E. will consider—as it has already done—greater public participation in the voluntary accreditation process. O.E. has a constituent relationship with voluntary accrediting bodies, however, and it will be under considerable pressure from that segment of the public it serves to avoid opening the accreditation process to procedures or persons not controlled by or representative of professionals in each field.

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Civil Commitment in Connecticut

What the Physician Should Know About Connecticut's New Commitment Laws

WILLIAM J. McCULLOUGH, B.A., J.D.

ABSTRACT—The Connecticut General Assembly recently enacted amendments to Connecticut's laws governing the civil commitment of mentally ill persons. The act, Public Act 77-595, will require new and different duties of those physicians who are involved in civil commitments after October 1, 1977. This article attempts to explain the most important changes and how they affect the individual physician. It is not meant as a substitute for the act itself, and anyone who becomes involved with civil commitment should be familiar with the actual statutory language.

Prodded by recent court decisions, the Connecticut General Assembly in 1976 enacted a sweeping revision of the statutes governing the procedures for the commitment of mentally ill persons. This enactment, Public Act 76-227, was to become effective on March 1, 1977. It was codified and printed in the latest edition of the General Statutes of Connecticut with that effective date. However, certain serious problems were discerned in P.A. 76-227, notably in the definition of "dangerousness," which required a recent overt act, and in the lack of constitutional safeguards in the emergency commitment section.

Consequently, Dr. Eric Plaut, Commissioner of the Department of Mental Health, formed a committee to study and make recommendations for further changes in the commitment laws. That committee, chaired by Michael A. Peszke, M.D., of the University of Connecticut Health Center, consisted of psychiatrists, attorneys active in the field of mental health law and representatives of the legislature. Over a period of months, the committee prepared a new revision which was presented to the 1977 General Assembly by Commissioner Plaut. The new legislation was passed amending the previous revision, P.A. 76-227, and also postponing the effective date of any changes to October 1, 1977.

Public Act 77-595, which is the most recent revision, makes several important changes in the statutes which will affect the practicing physician who is involved in civil commitments. Under this new act, a person must be "mentally ill and dangerous to himself or herself or others or gravely disabled" in order to be committable, as those terms are defined in the act. "Mentally ill" means a mental or emotional condition which has substantial adverse effects on a person's ability to function and which requires care and treatment. This definition specifically excludes drug dependency and alcoholism (P.A. 77-595, §1). "Dangerous to himself or herself or others" means there is "substantial risk that physical harm will be inflicted by an individual upon his or her own person or upon another person," and "gravely disabled" is defined as a "condition in which a person, as a result of mental or emotional impairment, is in danger of serious harm as a result of an inability or failure to provide for his or her own basic human needs such as essential food, clothing, shelter or safety and that hospital treatment is necessary and available and that such person is mentally incapable of determining whether or not to accept such treatment because his judgement is impaired by mental illness." (P.A. 77-595, §1).

Section 17-183 of the General Statutes, pertaining to emergency civil commitments, was most affected by Public Act 77-595. Section 4 of the act provides that "Any person who a physician concludes is mentally ill and dangerous to himself or others or gravely disabled, and is in need of immediate care in a hospital for mental illness, may be confined in such a hospital, either public or private, under an emergency certificate . . . for not more than fifteen days without order of any court. . . ." This emergency commitment may be continued an additional fifteen days if application is made for commitment in Probate Court. Any physician, licensed in Connecticut, may sign an emergency certificate. The certificate, provided by the Department of Mental Health, must be

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delivered to the person in charge of the hospital along with the patient. It must state the date of personal examination of the patient (which cannot be more than three days prior to the date of signature of the certificate), the findings of the physician relative to the physical and mental condition of the patient, the history of the patient (if known) and that it is the opinion of the physician that the patient "is mentally ill and dangerous to himself or herself or others or gravely disabled and is in need of immediate care and attention in a hospital for mental illness." The physician is required to state on the certificate the reasons for his or her opinions.

This section further provides that any person admitted under an emergency certificate must be examined by a psychiatrist within 48 hours of admission, and if that psychiatrist does not agree that the patient meets the criteria for emergency commitment, the patient must be immediately discharged (P.A. 77-595, §4(b)). Any person admitted under an emergency certificate shall be promptly informed that he or she has the right to consult an attorney, the right to a hearing within 72 hours of a request for a hearing, the right to be represented by counsel at the hearing and that counsel will be provided if the person cannot afford private counsel. The hearing, if requested, will be held by the Probate Court which must decide if there is probable cause to conclude that the person is mentally ill and is a danger to self or others or gravely disabled and is in need of care and treatment in a hospital for the mentally ill. This hearing does not take the place of the regular commitment hearing which must still be held by the Probate Court, assuming an application for commitment has been properly filed (P.A. 77-595, §4(c), (d)).

If such application is filed in the appropriate probate court alleging facts which would allow the court to exercise jurisdiction (an application may be filed by any person), the court will, within ten days, set a date and place for the hearing. The hearing may be held in the hospital itself if at least one of the examining physicians concludes that it would be detrimental to the patient-respondent to travel to the court (P.A. 77-595 §2(a)). If the respondent so requests, a three-judge panel of probate judges will be appointed to hear the case (P.A. 77-595, §2(b)).

Prior to the hearing, the court must appoint two physicians, licensed in Connecticut and practicing for at least one year, to examine the respondent and report to the court their findings. At least one of the physicians must be a practicing psychiatrist and neither of them can be connected with the hospital to which application is being made nor related to the respondent or applicant. These physicians must be appointed from a panel of physicians supplied by the Commissioner of Mental Health. The report of each physician shall be made on a separate form provided by the Department of Mental Health. The form shall include questions concerning: 1) the specific mental illness alleged; 2) whether or not the respondent is dangerous to self or others; 3) whether or not the illness has resulted or will result in serious disruption of the respondent's mental and behavioral functioning; 4) whether or not hospital treatment is both necessary and available; 5) whether or not less restricted placement is recommended and available; and 6) whether or not the respondent is incapable of understanding the need to accept the recommended treatment on a voluntary basis. The physician must also state the reasons for his or her opinions on the form and certify under oath that what is stated is true to the best of his knowledge and belief (P.A. 77-595, §3(c)).

The respondent must be present at the hearing and may cross-examine the physicians if proper notification to the court is made. If the court finds, by clear and convincing evidence, that the respondent is mentally ill and dangerous to self or others or gravely disabled, it shall order his or her commitment, considering whether or not a less restrictive placement is available, to a hospital for mental illness (P.A. 77-595, §3(c)).

If the respondent refuses to be examined by the court-appointed physicians, the court may issue a warrant for the apprehension of the respondent and he or she then may be brought by the police to a general hospital where he or she shall be examined by two physicians. These examinations shall be similar to that mentioned above and shall take the place of those of the court-appointed physicians at the probate hearing (P.A. 77-595, §3(d)).

The patient, once commitment is made, has to be notified at least annually that he has a right to a further hearing in probate court. In addition, the hospital must furnish each court of probate on a monthly basis a list of patients committed by that court who have been confined for one year. The court shall appoint a psychiatrist from the commissioner's list who shall examine each such patient and report back to the court. If it is the psychiatrist's opinion that the court should review the commitment, it shall do so in the manner of the original hearing (P.A. 77-595, §3(g)).

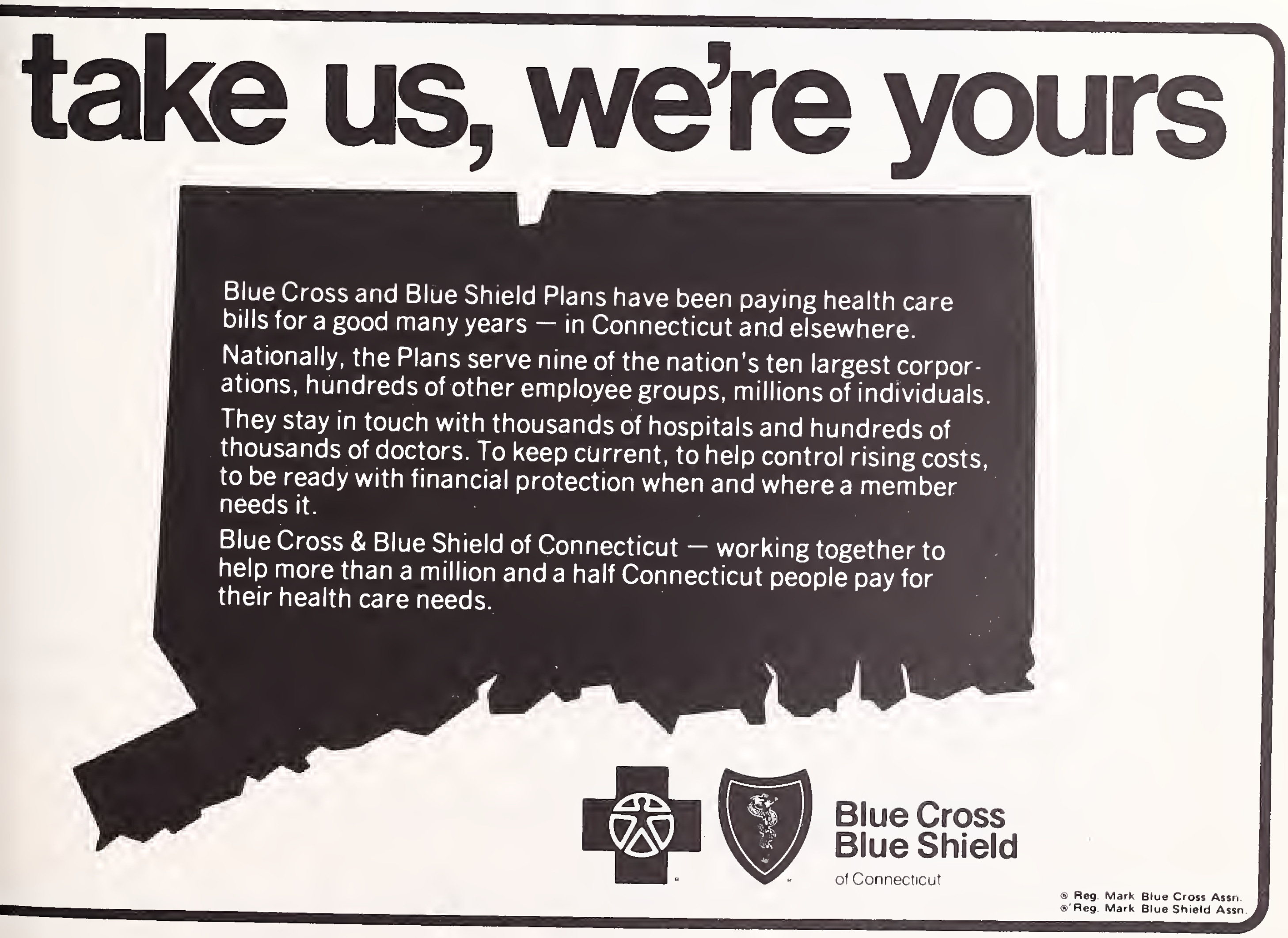
This act makes important changes in the "voluntary admission" or voluntary commitment statute (§17-187), as well as in the involuntary commitment statutes. The patient may not be kept longer than five days (now ten) after giving notice of the intent to leave, excluding weekends and holidays, unless an application for commitment has been filed, in which case the patient may be confined a total of fifteen days from the date of the request to leave (P.A. 77-595, §5(a)). This fifteen day period takes the place of the emergency commitment under §17-183 and the same provisions for a probable cause hearing apply (P.A. 77-595, §5(c)).

A new section provides for the taking into custody of a person on police initiative for the purpose of an emergency examination at a general hospital where the person can be held for up to seventy-two hours without a hearing (P.A. 77-595, §7(a)). Another new section allows the probate court to issue a warrant for the apprehension and bringing before it of a person for whom an application has been filed, in order to determine if there is probable cause to believe that such person is mentally ill and dangerous to self or others or gravely disabled (P.A. 77-595, §7(b)).

Finally, the act provides for a more liberal transportation policy. The state will pay, if the patient cannot, for transportation in any appropriate form from a hospital to a state-operated facility; for a voluntary patient who wishes emergency treatment; for alcoholism patients; and for patients who have been on leave and wish to return to a state facility. This transportation does not have to be by ambulance, as it does now, and does not require commitment of the patient before the state will pay (P.A. 77-595, §8).

The act will require many new forms which will hopefully provide more detailed and therefore meaningful information to all concerned with civil commitment, especially to the probate courts. These forms, to be developed by the Department of Mental Health and the probate courts, should be available to the physician prior to October 1, 1977, the effective date of the revision.

In conclusion, Public Act 77-595 will require that everyone involved in the civil commitment of mentally ill persons, including the courts and the physicians, must carefully and thoroughly examine each individual case in determining whether hospitalization is the best alternative for that individual. The physicians and psychiatrists will become even more important than they are now in the process of civil commitment. It is the hope of those involved in the creation of Public Act 77-595 that it will place Connecticut in the forefront of the nation in mental health law.



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Civil Commitment Reform in Connecticut A Perspective for Physicians

Appendix: A Practice Manual for Physicians

MARC A. RUBENSTEIN, M.D., HOWARD V. ZONANA, M.D.
AND LANSING E. CRANE, J.D.

Civil commitment law is one of those impossible yet essential areas of human endeavor, like education and marriage, which can neither be done well nor done without. Historically, society has sought to promote public safety and individual welfare through the commitment process; however, as far back as the early nineteenth century, there has been recognition in legal and medical literature of the potential conflict these goals present with principles of individual autonomy and liberty.[1] This conflict has been exacerbated when abuse and stigmatization have taken place under the guise of patient care.

Waves of reform have periodically swept across the United States, now emphasizing the authority of the doctor and the community to hospitalize involuntarily, now limiting that same authority in an effort to protect civil liberties. The most recent period of reform, covering the last fifteen years has emphasized civil-rights and has led most states to rewrite their civil commitment statutes, often more than once.

The current interest in Connecticut in revising civil commitment statutes, perhaps a bit belated with respect to the rest of the nation, is in keeping with both the long and short run of historical tradition, and bears witness to the inevitable, uneasy effort to find a balance between the promotion of health and the protection of liberty. As we shall see when we examine the new law, efforts at reform in Connecticut represent a compromise between civil rights advocates and mental health professionals.

Basically, the movement toward reform has been fueled by instances of patient neglect, vague statutory language and an absence of procedural rights in Connecticut's previous commitment law. Indeed, the wording of the commitment standard was held up to public ridicule in the nineteen-sixties because of its lack of specificity; the law at that time indicated that to be "commitable" one had to be found "mentally ill" and a "fit subject for confinement in a hospital for the mentally ill." Such language has had a reasonable, even honorable, place in Connecticut law. In the early part of this century, when many states had detailed and cumbersome commitment laws designed to protect all but the most blatantly ill from hospitalization, Connecticut's law was undoubtedly considered a humane and expeditious way of authorizing the physician to do what had to be done. In our civil-rights-conscious era such "loose" statutory language has proved unresponsive to the need to protect the individual from the great power of the state to intrude upon him.

Earlier legislative activity and civil rights litigation heralded the present revision of Connecticut's law. Foremost was the alteration of the emergency certification portion of the commitment statutes in 1971. "In need of immediate care" had been the sole criterion by which a physician could judge his authority to detain a mentally ill patient against his will in an emergency. At that time, the concept of "dangerousness" was added, so that the emergency detention statute permitted confinement of someone "suddenly . . . in need of care and treatment and a danger to himself or others." The period of emergency detention without a court hearing was shortened from thirty days to fifteen. Because "danger" was not defined, nor the change in the law well publicized, it is uncertain how much impact these changes had on

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commitment practices in Connecticut. However, these revisions were the prelude to today's rewritten commitment law.

Most physicians today are concerned about who is "commitable" in a fashion which goes beyond the literal requirements of the law. Some of this heightened awareness comes from the increasing tempo of litigation in Connecticut involving commitment. So far, none of these cases have invalidated the commitment process, but the sheer existence of litigated or contested commitment reflects a changing social environment in which physicians must work.

An early example was *Mayock v. Martin.*[2] In 1968, the Connecticut Supreme Court was asked to review the twenty year confinement of Peter Mayock. The narrow issue was Mayock's claim of religious freedom—in an effort to promote world peace Mayock had taken literally the Gospel according to St. Mark and had removed an offending hand and eye. The broad issue was unmistakable: the highest court in Connecticut was being asked to give definitive content to Connecticut's vaguely expressed standard for commitment. The court, however, did little to increase our understanding of that standard. It held that the State's power to "safeguard the peace, good order and comfort of the community" was an adequate basis for continuing the confinement of someone like Mayock, who might repeat his dramatic behavior if released. The court's opinion is mostly significant for the dissent of Justice Shea who anticipated the present mood of reform in the state. He wrote, "As between the possibility that the plaintiff may amputate his foot and the certainty that, under this judgment, he must remain incarcerated against his will indefinitely, I choose the former."

In 1972, the commitment statutes, including the "modernized" emergency detention statute, were challenged in *Logan v. Arafeh*,[3] a class action suit brought on behalf of patients detained at Connecticut Valley Hospital. It was argued that "fit subject for confinement" is an unnecessarily broad concept, and that fifteen days are an unconstitutionally lengthy period of time to detain someone merely for examination. The Federal Court was not persuaded by these arguments, holding that the fifteen day period was consistent with reasonable clinical practice and that the Connecticut courts should have an opportunity to interpret Connecticut's standards before a Federal Court would intervene. Again, it was not the outcome of these cases which was telling, but rather the timeliness of the questions they raised which now seem important.

The Perspective of Individual Liberties: The Legal Issues

For the doctor, civil commitment seems an inevitable extension of the physician's healing role, a natural part of his therapeutic armamentarium. It represents his authority, granted by law and society, to hospitalize a protesting patient. From a legal point of view, civil commitment is one of a very few instances where an individual may be deprived of his liberty. It is this sobering fact which lies at the heart of most contemporary efforts to reform civil commitment law.

As we shall see when we look at Connecticut's law in detail, much of the impetus behind statutory revision has been to bring into commitment law the concepts which have come to be part of the protection of defendant's rights in the criminal process. If mental patients must endure the same loss of liberty as criminals, the argument runs, should they not be entitled to equal protection of their rights? Fundamentally, these consist of laws unambiguous in their language and procedures which guarantee fair play. Nonetheless, considerations of humane treatment and protection of society have for many centuries created a strong tradition of less stringent legal standards and safeguards in civil commitment. It was found during the previous wave of civil-right-oriented reform a hundred years ago, for example, that jury trials have little place in commitment proceedings even if they are an integral part of "due process" in criminal proceedings. Because of these conflicting traditions considerable debate and conflict have arisen once again over the policies and procedures appropriate to the confinement of the mentally ill.

The rights of the individual have been at the heart of the controversy. Civil libertarians have asserted that neither our knowledge of mental illness nor our ability to treat it justifies any differentiation of the mental patient from any other individual when it comes to losing liberty. They argue that institutionalization may worsen, or even bring on, the very illness which hospitalization is supposed to treat, and that psychiatrists cannot really distinguish the truly "ill" from the normal or feigning individual. Further, they insist, treatment which is not brief is useless.

In general this controversy has been expressed in terms of four fundamental legal issues: the *basis* (or standards) for commitment, the *procedural* rights involved in committing, the *competency* of the alleged patient to refuse hospitalization, and the nature of *institutionalization.*

The question of standards may represent the most sharply divisive issue. All agree that adequate justification must exist for the "massive curtailment of liberty"[4] imposed by civil commitment, but there is a parting of the ways over the nature of the harm necessary to justify confinement. The most "medical" approach is one which defines the least, as with Connecticut's previous law. In that instance the standard of "commitability" has been the physician's belief that his patient "needed" hospitalization on clinical grounds. At the other extreme is the civil libertarian view that only imminent danger of physical harm, evidenced by a recent overt act or threat, is sufficient to justify incarceration. Clearly this latter point of view is one which finds all forms of loss of liberty equally noxious, whether criminal or civil, and would limit involuntary hospitalization to only the most compelling situations. It should be obvious that these are not merely different standards for commitment with differing thresholds of "commitability"—but they are also the expression of two vastly different social policies for the use of involuntary hospitalization. The first sees involuntary treatment at one end of a continuum of psychiatric treatments, where the other perceives involuntary institutionalization not necessarily as a treatment at all but as a form of protective, sometimes destructive, detention. It is, among other things, their vision of hospitalization as preventive detention which prompts civil libertarians to put forward the same procedural rights for mental patients available to those involved in the criminal process.

Commitment laws have long been characterized by their minimal emphasis on procedural protections in contrast to the criminal law where the right to a timely hearing, to adequate legal counsel, and to demanding standards for evidence have been constitutionally guaranteed. In medical practice generally there is little place for such concerns since the patient's illness appears to dictate and justify the actions the physician may have to take on the patient's behalf. It is from this medical perspective that the procedural rights afforded criminal defendants have often appeared unnecessary and anomalous in civil commitment. Yet a consensus has been emerging concerning the procedural rights of committed patients.

The issue of competency reflects a steadily changing view of the mental patient. Until quite recently it was presumed without question that anyone who appeared to need psychiatric hospitalization was, by definition, incompetent to decide anything in his own behalf. It was for this reason that the idea of "voluntary" admission seems a relatively new concept, since it was believed that a condition which required psychiatric hospitalization would necessarily render the patient incompetent. From the concept of voluntary admission it is a short step to the idea that a patient might need hospitalization but be competent to reject this recommendation. Such a notion is entirely familiar in all other areas of medicine, where it is generally acknowledged that a patient has a right to refuse treatment even in acutely life-threatening situations. Connecticut's recently enacted Alcohol Treatment Act specifically states that a patient's rejection of the doctor's recommendation of hospitalization cannot be used as evidence of his need for commitment.

Concern with the legal nature of institutionalization has led to the creation of new concepts which have been appearing in litigation and legislation. One is the idea of the "least restrictive alternative" which expressed dissatisfaction with commitment as an all or nothing process and suggests that facilities which are less than "total" institutions should be used whenever possible. Another is the "right to treatment" which expresses the *quid pro quo* theory to requiring beneficial care in return for the loss of personal liberty. All these concepts have a good deal of legal logic in them, but their clinical and social validity remains to be determined.

Commitment Practices in Connecticut: The Physician's Perspective

Institutional needs, personal style, practical considerations, social pressure and administrative policy—all have served to create the context in which Connecticut statutes concerning civil commitment have been applied over the years. Consequently, the everyday interpretation and use of these statutes have varied widely across the State, often reflecting an inadequate understanding of the wording and intent of the law and frequently straying quite far from it.

Since for most Connecticut physicians, "commitment" means emergency certification ("signing a fifteen day paper," as it is frequently referred to) it is worthwhile appreciating that "commitment" on this basis is not legally commitment at all, but "detention prior to commitment," or an extension of judicial commitment. As in most states, Connecticut's commitment statutes are built around judicial proceedings as the basic model for the law's operation. Emergency certification is designed to deal with those cases which "suddenly become in need of care and treatment," and thus are not able to be dealt with in the relatively slow channel of probate commitment. Many physicians are not clearly aware that the emergency document they sign when "committing" someone acts as a temporary court order, and thus represents the exercise of a prerogative—regulating the deprivation of liberty—traditionally guarded very jealously by the court.

Who is committed? For a number of years, alcoholics and drug addicts have had separate statutes governing their hospitalization but until quite recently a lack of special facilities and minimal public awareness of these special laws have led to their hospitalization under ordinary commitment statutes. This law has been for the "mentally ill person" (addicts and alcoholics specifically excluded), defined as "afflicted by mental disease to such extent that he requires care and treatment for his own welfare or the welfare of others or of the community." This has not been the standard for commitment but rather only a definition of the category of individual to whom commitment standards may be applied.

Strictly speaking this has meant that those meeting the criteria for emergency confinement—"suddenly. . . a danger to self or others"—could not be committed, no matter how dangerous, if they were not first determined to be "a mentally ill person."

There is no reason to believe that even these fairly relaxed standards have been closely observed in the widespread use of the "emergency paper" in Connecticut. This form of commitment accounts for ninety-nine percent of all involuntary admissions to state hospitals in Connecticut, and nearly half of all admissions. There are many reasons why such terms as "suddenly" or "dangerous" have not been rigorously observed in writing fifteen-day papers. Emergency certification has served as a quick and efficient problem-solving device through which a number of divergent individual, family and social needs and conflicts can be resolved temporarily with the stroke of a pen.

Although the "certified" individual has theoretically been found "dangerous," the absence of any clear clinical or judicial precedent in Connecticut as to what constitutes "danger" in the context of emergency certification has so far left the operative definition of this term up to the certifying physician. Since close to half of all the many thousands of patients admitted each year to the three state hospitals for the mentally ill arrive on the basis of an emergency certificate, it does not seem likely that all of them could be "dangerous" in the strict sense of the word—nor for that matter does it appear certain that most of the certified admissions are actually "emergencies" in any sense.

A number of non-medical factors have contributed to the heavy reliance on the emergency certificate in Connecticut. Emergency certification is believed by many Connecticut physicians to be essential for admission of *any* patient to a state hospital—a "ticket of admission." Administrative policy at the State level has at times contributed to this impression, as has the tendency of overworked hospital staff to limit admissions to those patients they have no choice but to admit.

Contemporary treatment philosophies have led many Connecticut psychiatric units to maintain "open door" policies on their in-patient units where the use of physical restraint is discouraged. Such a practice makes it difficult for these units to hold patients who are management problems and encourages "commitment" to the closed unit of a state hospital where admission may not be refused.

One such psychiatric facility which has made it a general policy not to accept involuntary patients (the Connecticut Mental Health Center, itself a State facility) has found that of the approximately 750 patients they admit each year, 13 to 15% are unmanageable on their units and must be sent involuntarily to the larger state hospital in Middletown.

It is possible that the increasing trend toward the use of the emergency room as the primary source of medical care for many individuals and families has contributed to large-scale use of the emergency certificate. Where complex psycho-social situations are seen for the first time in the setting of an "emergency" by medical personnel who are unfamiliar with the problem and the potential patient, it may well be that the spirit of "crisis" and "danger" pervades the air. The family physician, long familiar with an individual's illness, might have a higher threshold for what constitutes a "committable" emergency.

Large numbers of psychiatric patients of limited means appearing in hospital emergency rooms constitute a problem of disposition. Such patients, often having no satisfactory living arrangements nor tolerant family or friends, seem to require hospitalization when there is no other place to go. Further, many patients who might need hospitalization and would gladly go voluntarily to a private facility balk at the idea of going to a state hospital, either because of the stigma involved or because of what they have heard about the level of care. Many such patients are certified when no private facility is available.

Perhaps the greatest single reason for excessive use of emergency certification has been the law itself. Section 17-205a has provided state funds for the transportation of certified patients from local hospitals to state mental hospitals. This well-intentioned provision of the commitment law has had the unhappy effect of leading many otherwise voluntary patients to be certified in order to get the ambulance bill paid. Indeed, it is currently the policy of many Connecticut ambulance companies to take *only* committed patients to state hospitals (not just for the state guarantee for reimbursement—they want to be sure the patient will be admitted when they arrive).

Emergency certification has exposed the patient to at least fifteen days of involuntary hospitalization, although in practice about half of state hospital patients admitted by emergency certificate are released in less than that time. Until the present time, the patient could be held a total of *forty-five* days without a court order so long as application for formal civil commitment has been made to the local probate court within the first fifteen days. The patient has had some recourse to remedy this situation available to him but it is rarely practical. During the writing of the emergency certificate he could exercise his right to be examined by a physician of his choice; once hospitalized he could request a review by the Superior Court or seek a writ of *habeas corpus*. All these avenues of relief have required more legal sophistication and financial support than most patients have available; further, it might appear that the wheels of justice turn too slowly to merit the effort.

Emergency certification frequently involves the removal of the patient from his community to a distant state institution. Where formal commitment proceedings have been initiated in that hospital, a probate court that is far from the patient's home became involved, further severing his ties to his community.

Though it happens rarely, it is possible for an individual to be committed by a probate court in his own community without previously having been hospitalized or certified. In practice, though, the spectre of probate commitment stirs considerable opposition when initiated *de novo* within the patient's community. Families do not like to appear in the non-medical setting of the court with its aura of adversarial confrontation and criminal stigma. Physicians are also reluctant to be involved in probate court commitment proceedings and consequently rarely initiate them on behalf of their patients. Understandably, the possibility of a time-consuming court appearance, though not always required, appears disadvantageous to the doctor by contrast with the expediency of the simple emergency certificate form. Such feelings, however irrational, have been a powerful factor in the avoidance of this mode of civil commitment which otherwise might be the most humane and, ultimately, the most practical way of seeing that a disturbed relative receives adequate care.

Commitment Reform: The New Law

The impetus for Public Act 77-595 began in 1976 when a revision to the existing commitment laws was enacted by the General Assembly. In accordance with a request from the new Commissioner of Mental Health, Eric A. Plaut, the effective date of the 1976 revision was postponed until March 1, 1977, to allow the Commissioner to conduct a comprehensive review of Connecticut's commitment practices. Commissioner Plaut convened an advisory group to study this problem and submit recommendations for reform.[5] Based on the committee's report the Commissioner submitted a reform package to the legislature. In the meantime, the effective date of the 1976 revision was postponed from March, 1977, to October, 1977.

Effective October 1 of this year Public Act 77-595 replaced the 1976 revisions. It reflects many of the elements of reform advocated by civil liberties groups while maintaining the role of civil commitment in protecting society and the disturbed individual.

The criteria for commitment have been substantially revised. The standards for both certification and civil commitment are now "dangerousness" and "grave disability." The new law provides a definition for dangerousness: "A substantial risk that physical harm will be inflicted by an individual upon his or her own person or upon another person." Gravely disabled is defined as: "A condition in which a person, as a result of mental or emotional impairment, is in danger of serious harm as a result of an inability or failure to provide for his or her own basic human needs, such as essential food, clothing, shelter, or safety." Further, to qualify as gravely disabled, it must be determined that hospitalization "is necessary and available and that such person is mentally incapable of determining whether or not to accept such treatment because his judgment is impaired by his mental illness."

These definitions embody a compromise. While the standards are far more specific than those repealed, they do not limit confinement to only those situations where physical injury has occurred or is threatened. The concept of grave disability is introduced to encompass those circumstances where serious, "non-dangerous" consequences may stem from a mental disorder. Indeed, the limits of grave disability remain to be defined by individual cases.

Medical discretion will continue to play a prominent role in Connecticut's commitment practices. A single physician is still able to initiate a fifteen-day detention, and the meaning of grave disability will rely heavily on medical judgment.

At the same time, procedural safeguards for the patient have been significantly increased. Patients may request a hearing before a probate judge to determine whether there is an adequate basis, or "probable cause," for continuing the patient's confinement under the emergency certificate. Furthermore, the requirement of proof in a probate proceeding has been increased from a mere probability to "clear and convincing evidence." Finally, the law specifically directs both the court and physicians to collect certain data that is regarded as critical to the hearing. These questions refer to diagnosis, dangerousness, the impact of the illness on the individual's ability to function, a consideration of less restrictive alternatives, and competency regarding the need to accept treatment. These revisions should increase accountability without embracing the strict features of the criminal law advocated by civil libertarians.

The new law deals directly with the issue of deinstitutionalization. As noted already, the examining physician and the court must address the question of a less restrictive alternative. While the practical applications of this remain to be seen, the statement of policy is clear: involuntary hospitalization should be considered as a last resort. Also, each committed patient must be examined by a court-appointed physician one year after his original confinement, and at least annually shall be informed of his right to request a formal court review of his continuing commitment.

The competence of patients to accept or reject recommended treatment is now an essential feature of the commitment laws. Where disability, rather than dangerousness, is the reason for proposed confinement, it must be determined that the patient's capacity to appreciate the need for treatment has also been impaired. Additionally, all patients facing commitment must be offered the opportunity to accept voluntary admission in lieu of voluntary confinement. The thrust of these two provisions is to emphasize that involuntary confinement should be invoked as a last resort, and then only after a careful assessment of the patient's ability to determine his own welfare.

Several features of the 1977 revisions should have a significant impact on commitment practices. No longer will an emergency certificate be required to insure payment of ambulance fees. Provision is made for the guarantee of expenses for voluntary as well as committed patients in need of transportation to state hospitals. Another feature makes it possible for police to initiate an emergency room examination where they have "reasonable cause to believe" that an individual can be certified. In the past, police have felt unable to intervene unless and until a crime has been committed, leaving families and physicians frustrated in their efforts to obtain emergency psychiatric intervention.

In addition to the police, probate court judges may now order an individual's apprehension and examination where the judge finds that there is "probable cause" to conclude that the person meets the criteria for certification. When emergency examinations are ordered by the court or requested by the police, the emergency room may hold the patient seventy-two hours before making a disposition. This provision, potentially one of the more controversial aspects of the new law, is intended to discourage unnecessary hospitalizations by allowing for brief intervention without certification.

Future Practices

Connecticut physicians will become significantly more active in civil commitment proceedings, particularly in connection with probate courts. Most importantly, the Commissioner of Mental Health is now empowered to draw up a panel of physicians and psychiatrists who may be called upon by probate judges to examine patients for possible judicial commitment. In the past, one inhibiting factor in the use of civil commitment—as opposed to emergency certification—for patients not already hospitalized has been the reluctance of courts to accept petitions for commitment until the petitioner had already obtained the names of two psychiatrists willing to see the patient. The courts now clearly have greater authority to appoint examining doctors and to impose examination upon unwilling patients; this suggests greater use of probate commitments without prior certification, with consequent increased physician participation in the judicial process.

Further, it seems likely that the enhanced review procedures of the new law will also place a palpable demand upon medical resources in Connecticut in order to obtain the necessary examinations.

Both of these aspects of the new law point toward greater responsibility being placed upon the physician to participate not just more actively, but more knowingly. Where commitment practices too often involved the services of the same two doctors performing repetitive, *pro forma* examinations at the state hospital, it now appears that physicians from a large panel will be selected to do those examinations, many in the respondent's own community. These examinations will have to meet the higher standards and enlarged expectations of the new law. At the same time, it is hoped that the increased numbers of physicians coming into contact with the commitment process will have a beneficial influence on the evolution of future commitment standards.

To some extent the judiciary will also shoulder an increased burden: at the very least, augmented review procedures promise to create new demands upon the time and finances of the probate court system. Generally, increased activity within both the judicial and medical communities suggests a movement toward greater collaboration between the two professions. Given the overlapping medical and social aspects of civil commitment such collaboration is both appropriate and timely. The specific questions on the commitment form which physicians must respond to and judges must weigh are an example of the increased collaborative scope implied in the new law. It seems likely that educative efforts on both sides will be necessary to make the most of this potential.

It remains to be seen if the altered standards and procedures for commitment will change practice materially. The new law intends to discourage commitments as a matter of administrative convenience; the funding of transportation has been liberalized to include voluntary patients, and voluntary status itself has taken on special emphasis, as has the use of less restrictive placements. Greater emphasis has been given in the new law to the use of the probate court, in particular by facilitating its use in the commitment of ambulatory patients. All these factors may serve to shift the balance away from the preponderant use of emergency certificates. However, the full impact of the revised standards cannot be predicted.

Our reading of the new law suggests that physicians may begin to experience a new set of social mandates with somewhat contradictory implications. The general tone of the new law strikes us as clarifying and strengthening the role of the physician in commitment. During the recent era of concern for the protection of civil liberties (which has also coincided with increased concern among physicians for their liability for negligence) the vague statuatory language of Connecticut's previous law may have led to *over*-interpretation, and thus excessive caution on the part of committing physicians. The new law may correct this imbalance by more clearly defining those areas of clinical concern appropriate for involuntary hospitalization. The use of clinical judgment itself seems to be encouraged in the new law, especially in the tasks of defining of mental illness, applying standards of grave disability and gauging the patient's competency to make decisions regarding his own care.

At the same time, limits are clearly set. Dangerousness, as a standard for commitment, must be limited to physical harm, and the inability to provide for one's own needs is a relevant standard only so long as the individual is also incompetent to refuse treatment. We believe that these clarifications will significantly improve the confidence and comfort of physicians who find themselves involved in the commitment process.

The new law should allay some of the uneasiness of civil libertarians, and perhaps of the general public, by its greater emphasis on procedural rights and review. At the same time it should go far in altering the physician's sense of alienation and ineffectiveness in the commitment process.

The ultimate effectiveness of the new law will depend less on its language than on the spirit of cooperation it may generate between medicine and the judiciary.

REFERENCES

1. *A Practical Treatise on the Law Concerning Lunatics, Idiots, and Persons of Unsound Mind,* J.S. Littell, Philadelphia, 1833. Also: Ray, Isaac, "American Legislation on Insanity," *Journal of Insanity,* July, 1864.
2. *Mayock v. Martin,* 156 Conn. 56, 245 A. zd574 (1968).
3. *Logan v. Arafeh,* 346 F.Supp. 1265, (D. Conn. 1972).
4. *Humphrey v. Cady,* 405 U.S. 504 (1972).
5. The committee was chaired by Dr. Michael Peszke, and included the Probate Court Administrator, Judge Glenn Knierim, eight attorneys and physicians, as well as Dr. Zonana and Mr. Crane.

APPENDIX

Practice Manual for Physicians

Public Act 77-595 derives from an assumption that sound clinical practices are consistent with principles of due process of law. Physicians following such practices should not find the requirements of the new law burdensome. Indeed, it was the hope of the Commissioner's Advisory Committee that the statutory changes proposed and enacted would help clarify the physician's role in commitments and would help reduce needless or artificial practices that have been spawned by prior commitment laws.

Emergency Certificates

The "fifteen day paper" remains the primary mechanism for responding to the protesting patient who presents a psychiatric emergency. As before, such certificates are to be signed by a physician who has personally examined the patient. Once the patient is admitted to a hospital, the certificate authorizes detention for an initial fifteen days, with a subsequent fifteen day detention authorized if judicial commitment proceedings are initiated in a probate court.

In order to certify, the physician should conclude that the patient is mentally ill, dangerous or gravely disabled, and in need of immediate care and treatment in a hospital. The concepts of illness, dangerousness and disability are all defined by the statute, and might be summarized as follows:

A. *Mental Illness:* Patient must suffer from a condition recognizable by a physician as a mental disorder ("a mental or emotional condition"), and that disorder must substantially effect the person's functioning.

B. *Dangerousness:* A person is dangerous if there is a substantial risk that he will "inflict" physical injury upon himself or someone else.

C. *Gravely Disabled:* A person is gravely disabled within the meaning of the law, if his condition leaves him in danger of serious harm because of an inability or unwillingness to provide for the essentials of life, including safety; if that condition requires hospital treatment; if such treatment is available; and if the patient cannot give informed consent to the hospitalization.

Reading these three standards together, the following guidelines might be derived for certifying physicians:

1. The definition of mental illness remains largely in the eye of the beholder, but should be limited to conditions that a consensus of responsible

physicians would identify as mental or emotional disorders.

2. If a person is to be certified as "dangerous," there must be a substantial possibility—though not necessarily a probability—that the person will physically injure himself or someone else by an affirmative act.
3. If a person exposes himself to risk of physical injury rather than inflicts physical injury on himself, a certification on the basis of dangerousness is probably inappropriate. Rather, disability is the more apt standard to apply.
4. Harmful consequences other than physical injury of a person's mental illness can only be the basis for commitment if these consequences derive from the failure or unwillingness to provide for basic human needs (including safety), and if the patient lacks the ability to give or withhold informed consent to hospitalization.
5. A person is unable to give informed consent if he is "mentally incapable of determining whether or not to accept such treatment because his judgment is impaired by his mental illness." Until precedents establish some clear meaning to this language, physicians should probably apply the same principles of informed consent to psychiatric hospitalization as are applied to other medical decisions. Whatever standard of informed consent evolves in this field, however, will have to acknowledge that the disability standard assumes that there will be some potential patients who meet all the criteria for commitment but cannot be certified because they have the capacity to give informed consent, but choose to withhold it.
6. Harmfulness to others which does not qualify as "dangerousness" cannot be the basis for certification.
7. Emergency certification is appropriate if someone is "in need of immediate care and treatment." This language replaces the old language which spoke of a person being "suddenly" in need of care and treatment, and was intended to focus the certifying physician's attention on the character of the emergency rather than either the location of the patient or the timing of the physician's intervention.

A number of other changes in the law should affect emergency certification practices. First, the person certified no longer has the right to be examined by a physician of their choosing to review the appropriateness of the commitment. Second, an emergency certificate is no longer necessary to guarantee payment of ambulance fees. Finally, persons presented to the emergency room by the police will have to be accompanied by a request for examination filled out by the police which should specify their basis for concluding that the person should be examined. Such cases must be examined by an emergency room physician within forty-eight hours and a disposition made within seventy-two hours of presentation. Physicians should note that certifications remain "permissive" under Connecticut law—a physician is not required to commit everyone who meets the statutory criteria.

Probable Cause Hearing

A new procedure enacted by Public Act 77-595 is the probable cause hearing. It is available, by request, to all persons certified by physicians, and is designed as a safeguard against arbitrary certifications. Such hearings are to be conducted by the Probate Judge within three business days of the patient's written request. Since the patient will have been in the hospital for at least two days prior to the hearing, and since the hospital must discharge any patient not believed to meet the certification criteria, it is highly unlikely that anyone other than hospital personnel will have to appear at the hearing.

Finally, physicians should be aware of the fact that probable cause hearings are not designed as substitutes for commitment proceedings where the Probate Judge must make his own decision on the merits of the commitment. Rather, it is a partial review aimed at testing the grounds for holding someone for fifteen days under a certificate. If a probate commitment proceeding is initiated before the patient requests the hearing, the right to a hearing is lost.

Judicial Commitments

The statutes regulating judicial commitments by the Court of Probate are extensively revised by Public Act 77-595. The major thrust of the change is in the direction of substantially augmenting the procedural rights available to the respondent in a commitment proceeding. Henceforth such respondents will be able to request a three judge probate court panel in lieu of a decision by a single judge and select the attorney of their choice for appointment by the court in the event that the person is indigent. Furthermore, the need for confinement will have to be shown by clear and convincing evidence, the patient must be given an opportunity to be a voluntary patient, and the judge is instructed to take into account the possibility of less restrictive placement alternatives to inpatient confinement.

The following guidelines should be helpful for physicians providing expert opinion to the court or advising others, such as families, on the need for probate commitment:

1. The standards for confinement both by a probate court judge and by a physician's emergency certificate are the same—illness and dangerousness or disability—with two qualifica-

tions. The emergency certificate is available for the confinement of those "in need of immediate care and treatment," but this requirement is dropped from the standard for probate commitment. Thus, conceptually, the emergency certificate should be used only for emergencies, and probate proceedings resorted to in all other cases involving the need for involuntary hospitalization.

2. The second qualification is the application of the concept of the "least restrictive alternative" to probate proceedings. The probate judge ordering confinement must, under this statute, consider "whether or not a less restrictive placement is available." Presumably, the burden of finding such alternatives shall rest with the respondent, but physicians should be prepared to speak informatively on the relationship between the subject's need for care and a setting proposed for that care. Parenthetically, physicians should note that the concept of the least restrictive alternative has little utility when the reason for confinement is the dangerousness of the patient. The least restrictive alternative is useful as a concept only when the commitment proceeding is based on illness plus disability.
3. The role of the physician in the judicial proceedings is more clearly defined. Physicians are to give expert opinion based on reportable information. The judge must retain responsibility for determining whether the commitment is justified. Thus, a series of specific questions for examining physicians appear in the new statute. Furthermore, the physician is no longer required to certify in advance on the ultimate issue, but only to certify the results of his examination.

Voluntary Admissions

Physicians should note the change in time periods for the voluntary patient who indicates an intention to leave. Henceforth, if facilities wish to continue the hospitalization of such patients, they will have five days following written notice within which to initiate a probate commitment. Once the probate petition is filed, the hearing on the merits must occur within fifteen days of the date of the patient's written request to leave.

Medical records obtained illegally

Numerous instances of attorneys using fraudulent practices to obtain patients' confidential medical records have been uncovered in an investigation by Illinois State Medical Society.

The ISMS Task Force on Professional Liability launched the investigation early in 1976 to pinpoint the causes of malpractice suits against physicians, announced Joseph H. Skom, M.D., ISMS president. "However, a private investigator—retained by the Society—discovered illegal practices were being used to instigate personal injury lawsuits in several areas of the state," he said.

The investigation documented that several forged patient authorization forms were presented to an Aurora hospital by a Chicago attorney, Dr. Skom reported. The forgery was discovered when a member of the hospital's Medical Staff—working with the medical librarian—became suspicious and contacted several patients to verify their signatures. "The patients reported they had not signed the forms, and had not authorized the attorney to represent them or obtain their records," Dr. Skom added. The case—including an affidavit by a patient—was referred in June to the Kane County state's attorney.

The ISMS investigation is focusing on attorneys who apparently:

- Forge patient authorization forms for release of confidential medical records.
- Pay hospital personnel to review medical records and identify potential lawsuits for medical malpractice or other personal injury cases.
- Contact patients to encourage suit filings based upon illegally-obtained medical records.

Dr. Skom stressed that the investigation is not yet completed. "When fraudulent practices are documented in these and other areas, the information will be turned over to proper authorities. Because criminal prosecution may be involved, the ISMS cannot release additional information," he said. *Chicago Medicine,* Vol. 80, No. 7, April 2, 1977.

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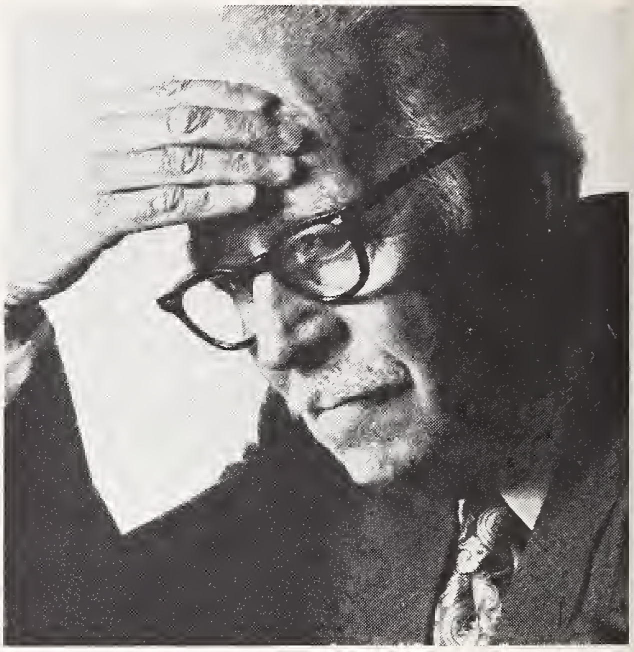

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THERAPEUTIC FOOTNOTE: IN TREATING ANGINA . . . FAILURES MAY RESULT FROM INADEQUATE DOSAGE Reports in the literature indicate the usefulness of higher dosage levels of isosorbide dinitrate.[1,2]

INDICATIONS: Based on a review of this drug by the National Academy of Sciences — National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: For the relief of angina pectoris (pain of coronary artery disease). ISO-BID is not intended to abort the acute anginal episode, but is widely regarded as useful in the prophylactic treatment of angina pectoris. Final classification of the less-than-effective indication requires further investigation.

CONTRAINDICATION: Idiosyncrasy to this drug.

WARNINGS: Data supporting the use of nitrites during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety.

PRECAUTIONS: Use with caution in patients with glaucoma. Tolerance to this drug, and cross-tolerance to other nitrates and nitrites may occur.

ADVERSE REACTIONS: Cutaneous vasodilation with flushing. Headache may commonly occur, and may be both severe and persistent. Transient dizziness and weakness, in addition to other signs of cerebral ischemia associated with postural hypotension may occasionally be seen. ISO-BID can act as a physiological antagonist to norepinephrine, histamine, acetylcholine and many other medications. An occasional patient may show marked sensitivity to the hypotensive effects of nitrite; severe responses (nausea, vomiting, weakness, restlessness, pallor, excessive sweating and collapse) can occur, even with the usual therapeutic dosage; alcohol may enhance this effect. A drug rash and/or exfoliative dermatitis is occasionally seen.

SAMPLES AND LITERATURE AVAILABLE.

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1. Shane, S.J.: Canadian Family Physician, November 1973. 2. Lemberg, L.: Practical Cardiology, February 1976.

Connecticut's Medicare B Assignment Rate

COUNCIL OF THE CONNECTICUT STATE MEDICAL SOCIETY

In November of 1976, when it came to the attention of the Connecticut Congressman Toby Moffett that the rate of acceptance of assignment for our state's Medicare B claims was below the national average, and far below the average for other New England states, the Connecticut State Medical Society was requested by him to study the problem with a view to discovering the causes and possible remedies. Since then, other Connecticut Congressmen have approached our County Medical Associations on the same issue.

In response, the Society has researched the differences in the way that HEW handles the Medicare programs of our neighboring states compared to the way Connecticut's program is constituted. Vast disparities in supplementary insurance coverage and in claim processing mechanisms which we found were striking. These considerations, taken together with other problems long endemic to our state's handling of health care funding, have led us to offer a set of recommendations which, if implemented, we believe can make our state's Medicare program as effective as those of our neighbors. Our recommendations are directed to HEW, to the state government, to the insurance carriers, to the public, and to our own physician members.

Preface

The statewide Medicare B assignment rate for Connecticut claims for 1976 was 40%. This means that assignment was accepted on only 40% of Medicare claims filed in that year. Although most of these claims were for physicians' services, other claims for ambulance service, medical supplies, and laboratory services were also included.

The average assignment rate for all the New England states in 1976 was 67.4%, ranging from Connecticut's 40% to Rhode Island's 76.9%. The nationwide average assignment rate was 50.5%, ranging from Wyoming's 17.6% to R.I.'s 76.9%. The trend for the nation has been a steady decline from the 1969 high average of 58.5% down to the present 50.5%. The New England states, however, have been experiencing an upward trend on the average, including the state of Connecticut, which in the past few years has slowly increased from 35% to 40% according to HEW.

Why has the Connecticut Medicare assignment experience been relatively low from the very beginning of the program? To what extent does the fact of a lower than average assignment rate impose a hardship upon elderly patients of modest means beyond what they already bear as a result of Medicare's only partial indemnity against medical costs? What can be done to minimize any such hardships in the future and to promote the acceptance of assignment at a higher rate as in other New England states? This paper is intended to illuminate these questions.

What is Medicare B Assignment?

Medicare "allowable" payments to physicians for specific services and procedures are based on each physician's "fee profile," developed from his past charges to Medicare patients, up to a maximum amount based on the 75th percentile of such fees for all the physicians in his charge area of the state. Each physician's fee profile is supposedly updated annually in July. (A physician can receive his own profile by making a written request to the Medicare Claims Office, 200 Pratt Street, Meriden).

Medicare payable benefits amount to either 80% of the physician's actual fee, or 80% of the physician's fee profile for the procedure, or 80% of the "prevailing charge" (75th percentile) for his charge area, whichever is lowest. This benefit applies only after a $60 annual deductible has been met. This $60 and the remaining 20% "co-insurance" are the responsibility

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This statement was prepared by the Society's Committee on Peer Review Systems, under the chairmanship of Sidney L. Cramer, M.D. It was approved as the Society's position by the CSMS Council at its August 1977 meeting, and was distributed widely to all interested parties.

of the patient to pay. About half of Connecticut's Medicare patients have elected to purchase supplementary insurance such as "CMS 65" to cover the 20%. Considerably less than half are covered for the annual $60 deductible.

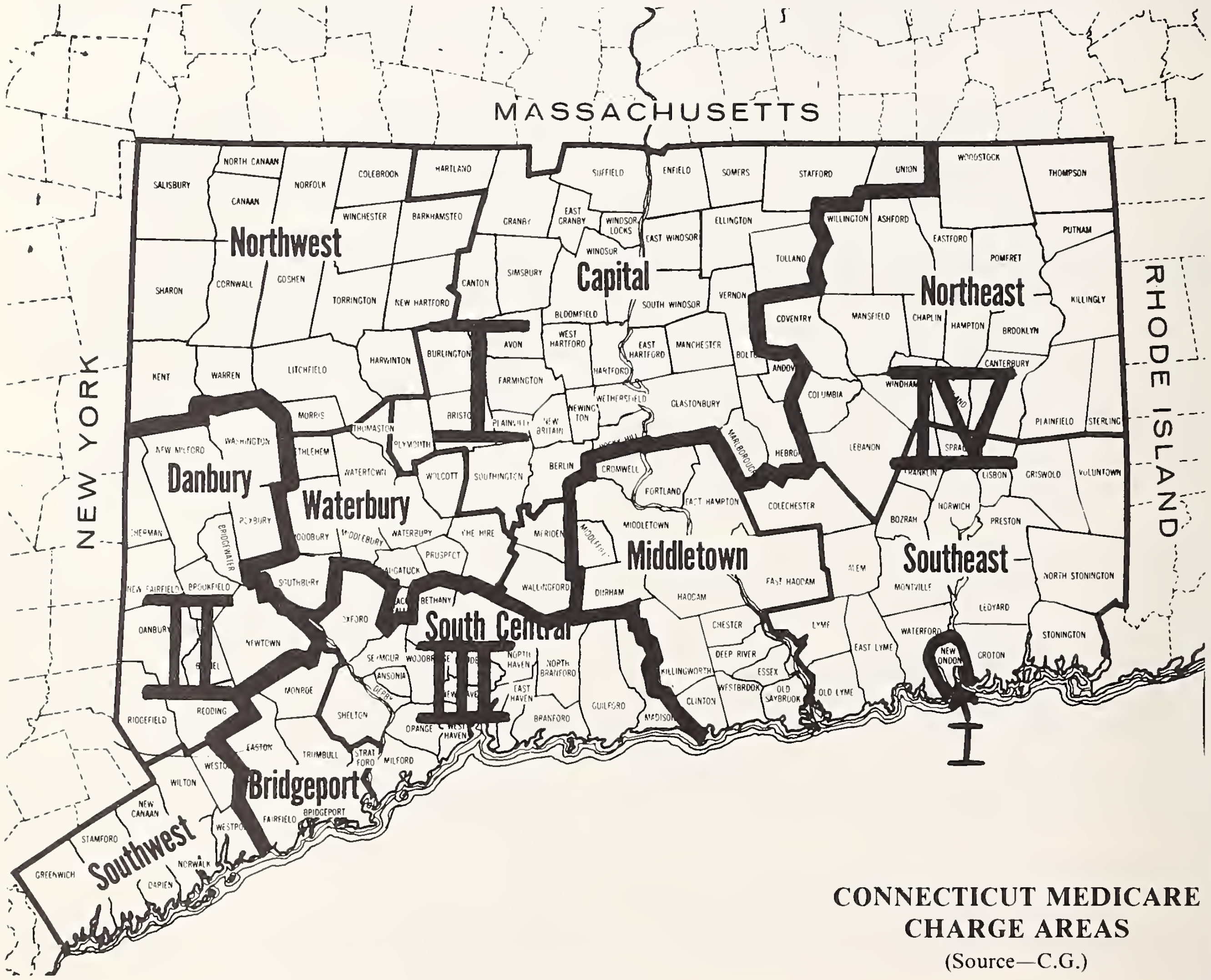
Under the Medicare law, doctors have the option in each case to "accept assignment" for charges to Medicare patients. By this, the physician agrees to accept as payment in full the Medicare benefit plus the 20% co-insurance and $60 deductible, if applicable. An advantage of the assignment method to the patient is that the physician assumes responsibility for filing the claim and receives Medicare benefits directly, thus relieving the patient of paperwork and of financial obligation beyond payment of the co-insurance and deductible if applicable. Assignments may be accepted selectively by physicians on a claim-by-claim basis.

The Per Capita Income Factor

Connecticut is divided for Medicare purposes into four charge areas. Area I comprises the Hartford north-central area, the northwest quadrant, the Waterbury area, and the city of New London. Area II comprises the Danbury area and the southwest corner of the state from Westport to the New York border. Area III covers the Bridgeport and New Haven areas together with the lower Naugatuck Valley towns. Area IV is the eastern third of the state including the Middletown area but excluding the city of New London. (See map).

The assignment rates for these four areas during a two-month below-average period in early 1977 are as follows: I—35%; II—26%; III—34%; IV—46%.

This breakdown would indicate that the Medicare assignment rate is at least partially a function of the per capita income of the area. In area II, where per capita income is highest, the assignment rate is lowest. In area IV, where per capita income is lowest, the assignment rate is highest. If this is applicable, as is expected, on a nationwide basis, then it is to be expected that Connecticut, having one of the highest state per capita incomes in the country, would have a proportionately lower than average assignment rate. Both Alaska (39.3%) and Hawaii (38.9%), other high per capita income states, do have slightly lower assignment rates than Connecticut, and traditionally lower income states like Mississippi (72.9%), Alabama (64.6%) and West Virginia (56.6%) have high



CONNECTICUT MEDICARE CHARGE AREAS
(Source—C.G.)

rates, according to HEW. This seems to indicate that physicians, wherever practicing, are responding to the financial needs of their patients in deciding whether to charge their usual fees or to accept Medicare-assigned benefits.

Relationship of Medicare Allowable Payments to the Assignment Rate

There is apparently no positive correlation between the level of allowable payments and the acceptance of assignment. In Connecticut's Area II, where fee profiles and allowable payments are the highest, assignment is the lowest. In area IV, where allowable payments are lowest, assignment is the highest. (See Table 1, Part A).

Moreover, Connecticut General reports that allowable Medicare payments in our state, even though based on data ½-2½ years old, are generally and significantly higher than the other New England states. Yet the assignment rate in Connecticut averages out to only 40% of claims paid, whereas in Massachusetts and Rhode Island the acceptance rate exceeds 75%. CG reports further that Medicare allowable payments are generally and significantly higher than those scheduled under the CMS Century Contract, yet of all CMS claims paid some 90% of

TABLE 1, PART A. CONNECTICUT ASSIGNMENT RATES BY SPECIALTY—APRIL AND MAY, 1977 (CG)

	AREA I		*AREA II*		*AREA III*		*AREA IV*		*STATEWIDE*	
	Total Claims	*% Assigned*	*Total Claims*	*% Assigned*	*Total Claims*	*% Assigned*	*Total Claims*	*% Assigned*	*Total Claims*	*% Assigned*
Totals:	868	35%	386	26%	499	34%	160	46%	1913	34%
General Practice	89	40%	26	46%	50	38%	28	36%	193	40%
General Surgery	67	40%	26	15%	38	42%	22	32%	153	35%
Allergy	2	0%	2	0%	2	50%	0	-	6	17%
ENT	16	25%	3	0%	14	14%	2	50%	35	20%
Anesthesia	48	44%	12	50%	11	82%	3	0%	74	49%
Cardiology	26	35%	9	11%	19	32%	0	-	54	30%
Dermatology	11	18%	3	0%	4	50%	2	50%	20	25%
Gastroenterology	4	50%	2	50%	6	33%	0	-	12	42%
Internal Medicine	175	31%	98	27%	43	53%	22	50%	338	34%
Neurology	9	22%	4	75%	9	0%	0	-	22	23%
Neurosurgery	2	50%	2	0%	6	0%	0	-	10	10%
Ob-Gyn	6	17%	5	0%	4	0%	0	-	15	7%
Ophthalmology	57	11%	27	19%	48	10%	11	18%	143	13%
Orthopedic Surgery	46	43%	18	11%	22	41%	11	64%	97	39%
Pathology	3	0%	0	-	2	0%	0	-	5	0%
Plastic Surgery	2	50%	1	100%	2	50%	0	-	5	60%
Physical Medicine	0	-	0	-	3	0%	0	-	3	0%
Psychiatry	9	22%	7	0%	2	0%	2	100%	20	20%
Proctology	2	0%	0	-	0	-	0	-	2	0%
Pulmonary Disease	5	20%	8	0%	7	71%	0	-	20	30%
Radiology	80	40%	32	19%	51	45%	13	92%	176	41%
Thoracic Surgery	13	31%	3	0%	11	18%	0	-	27	22%
Urology	23	26%	14	14%	23	35%	8	0%	68	24%
Chiropody	2	0%	0	-	2	0%	0	-	4	0%
Nephrology	12	67%	0	-	2	100%	2	0%	16	63%
Podiatry	29	45%	9	33%	24	21%	10	50%	72	36%
Oncology, Hematology, Rheumatology	14	21%	16	12%	17	35%	2	100%	49	27%
SUPPLIES	25	88%	33	76%	8	12%	4	100%	70	74%
AMBULANCE	24	29%	8	0%	8	12%	3	0%	43	19%
LABORATORY	46	28%	12	8%	37	22%	9	67%	104	27%
Other:	21	33%	6	33%	24	54%	6	50%	57	44%

TABLE 1, PART B	*AREA I*	*AREA II*	*AREA III*	*AREA IV*	*STATEWIDE*
Supplementary Insurance Coverage:					50% (Approx.)
Percent of Assigned Claims Covered—	52%	33%	41%	53%	46%
Percent of Unassigned Claims Covered—	24%	24%	20%	11%	22%
Percent of All Claims covered—	34%	26%	27%	31%	30%

Note: All specialties are listed, although the sample for some is too small to be significant.

payments are accepted as in-full by Connecticut physicians (an appreciable number of whom do so voluntarily, not by contract) even for well-to-do patients. Again, the much lower rate of acceptance of assignment under Medicare B is striking by comparison. (See Table 2).

If anyone were to accept the premise—as Medicine's severest critics are inclined to do—that simple avarice is responsible in some measure for Connecticut's relatively low Medicare assignment rate, then it certainly would be extremely difficult to explain why so many physicians are declining to accept *higher* Medicare payments by assignment (so-called "cash on the barrelhead") while, at the same time, accepting *lower* CMS payments as in-full up to the 90% level.

However, the same facts *do* clearly indicate that if a payment mechanism is simple, easily understandable, and predictable across-the-board, a majority of physicians will be inclined to utilize it; but that if a payment mechanism is complicated, subject to myriad exceptions and wasteful of time and resources, it will generally be avoided.

It has been noted that from the first few years of Medicare in Connecticut, the assignment rate has hovered at the 40% level or below. This may be explained in part by the government's action in 1970 to "freeze" physicians' Medicare-allowable charges at 1969 levels for the purpose of updating profiles, and, shortly thereafter, to reduce the allowable level of prevailing charges from the 83rd percentile to the 75th percentile. If one combines these early changes in the rules with the subsequent three years of wage-price controls and the more recent application of an economic index "formula," it seems reasonable to conclude that many physicians have elected not to accept assignment because of uncertainty as to what Medicare policy *really* was from year to year and even from month to month. It is possible that much of this uncertainty might be dispelled if physicians were informed in confidence of their current Medicare profiles annually and automatically, and that an increase in acceptance of assignment might result therefrom. Only 15% of physicians are requesting their profiles at the present time. N.B.: It is understood that a change in Medicare guidelines may be necessary to permit automatic distribution by the carrier.

The History Factor

The Medical profession has traditionally held sacred the inviolability of the physician-patient relationship and has long opposed such involvement by government or third party payers as would encroach upon that relationship, or as would require that the physician dispose of his services under terms or conditions "which tend to interfere with or impair

Table 2
COMPARISON OF "ALLOWABLES" (75th PERCENTILE OF "PREVAILING CHARGES") 1976-1977
FOR SAMPLE PROCEDURES AND SERVICES
(Rounded to nearest dollar)

Rate: ('76)	*Medicare*		*Medicare*		*Medicare*	*CMS*	*Connecticut Medicare*			
	Urban	*Rural*	*N.H.*	*Vermont*	*R.I.*	*Conn.*	*Area I*	*Area II*	*Area III*	*Area IV*
Procedure or Service										
Transurethral Resection of Prostate:	638	510	560	560	611	500	600	750	638	638
Cholecystectomy:	510	478	447	447	525	550	480	600	574	475
Partial Colectomy:	650	600	799	734	750	635	690	900	750	635
Fractured Neck of Femur (Open reduction w. pinning):	650	640	600	580	643	545	660	750	750	638
Subtotal Gastrectomy:	766	670	570	494	755	690	740	957	840	720
Removal of Cataracts:	638	600	500	500	525	550	638	850	638	600
Home Visit:	19	15	13	13	19	-	17	25	19	15
Office Visit:	15	12	10	10	13	-	13	15	13	12
Chest X-Ray: (2)	25	25	16	20	19	22	24	25	22	20
Hospital Visit:	15	13	11	10	14	15	13	19	13	13
EKG, Report:	20	20	19	20	20	20	19	22	19	19
Consultation (Comprehensive):	50	45	35	40	45	50	50	75	64	50
Carrier:	*Mass. Blue Shield*		*N.H.-Vt. Blue Shield*		*R.I. Blue Shield*	*Conn. Blue Shield Century Contract*	*Connecticut General Ins. Co.*			
Assignment Rate:	79%		55.7%		77.9%	(89% Accepted as Payment in Full)	40%			

the free and complete exercise of his medical judgment and skill."* Fortunately, physicians are not required under the law to become a party of the Medicare-Patient contract except by their own choice.

Connecticut physicians, in particular, are understandably wary of involvement with Medicare, especially if they connect it in their minds with Medicaid, which has had a bad reputation in Connecticut for hopelessly outdated payment schedules, extreme slowness and confusion in processing claims, and payment freezes under the previous state administration. The Medicaid situation, if anything, is now worse than ever.

The government itself has falsely raised the expectation of the elderly by promising to provide *"comprehensive care"* when in fact, Medicare only provides a partial indemnity against the costs of partial health care, for a limited period of time. Patients are understandably disillusioned, and physicians are often a convenient target for their ire.

Even worse, physicians are being frightened away from any involvement with Medicare upon reading the constant bad publicity about frauds and scandals occasioned by the HEW's publication of an error-riddled but damaging list of physicians accepting large amounts of Medicare money. The prudent course apparently being taken by many doctors is simply not to get involved with government programs, and to let patients handle the Medicare claims process themselves.

"Medicaid Audit Turns Up 537 Fraud Cases," "Doctors Can't Dodge It—Medicare Pay List Due." Typically misleading front page headlines such as these which appeared in the *New Haven Register* on June 19 and 26 deeply disturb and offend all honest physicians even though it is quite unlikely that Connecticut doctors will ever show up on HEW's "Most Wanted" list. The *fact* is that only a single Connecticut "doctor" has been indicted for fraud in all of our state's twelve-year Medicare history, even though CG and HEW constantly audit all claims. That "Doctor" was a podiatrist, not an M.D.

The fraud story might more properly have been headlined "Medicaid Fraud Negligible—Less than 1/10 of 1% of Physicians Suspected Nationwide." However, one case of a physician's performing six tonsillectomies on the same patient makes for better newspaper sales than 10 million patients treated effectively and fairly.

Connecticut's Complicated Claims Mechanism

In other New England states with higher assignment rates, the Medicare insurance carrier is also the Blue Shield carrier for supplementary insurance. A physician accepting assignment can fill out one form and be paid promptly and directly for both the 80% Medicare portion and the supplementary insurance when the patient has such coverage. In Connecticut, the Medicare carrier is a commercial insurance company, Connecticut General, and the common supplementary insurance carrier is Connecticut Medical Service (Blue Shield). Unfortunately for both patients and physicians, CG and CMS do not share claims information, so a separate form must be filled out for the Medicare portion alone. Only after the Medicare coverage (if any) is processed can the patient then submit the Medicare statement to CMS for supplementary insurance benefits to be paid. Whether or not the physician has accepted assignment, the supplementary benefits are paid to the patient not to the doctor, so the doctor must bill the patient as well to complete the process. Only about 25% of Connecticut's Medicare patients have supplementary insurance extensive enough to cover the $60 deductible, i.e., CMS 65 Plan A or Plan C (Plan C does *not* cover charges for home and office visits). By comparison, in Massachusetts and Rhode Island, where assigned benefits are accepted at the 76% level or higher, some 65% of Medicare patients are covered for both the $60 deductible and the 20% co-insurance.

Much of the red tape complicating Connecticut's claims mechanism could be cut if CG and CMS were to get on line to the same computer. We are told that discussions are now in process between these carriers to share information, but no results are expected for another year. Integration of the claim processes should be required without delay. Where a patient has supplementary coverage, a claim should be initiated automatically against CMS by CG, and doctors who accept assignment should receive the supplementary insurance benefits directly, as they now receive the Medicare benefits. CG's figures indicate that only two-thirds of potential claims against the supplementary carrier may be actually made. (Table 1, Part B).

One interesting conclusion that may be derived from the foregoing is that physicians and other providers are much more likely to accept assignment if the patient carries supplementary insurance coverage. For assigned claims in Connecticut, CG figures indicate that 46% of the patients had supplementary coverage; for unassigned claims, only 22% of the patients were so covered. These figures, coupled with the previously described favorable assignment-supplementary insurance experience in Massachusetts and Rhode Island, suggest strongly that under present conditions Connecticut's 40% assignment rate is surprisingly *high.*

$10 Million Overcharged or $25 Million Uncollected?

No one can determine—or even estimate— how much of the reported $10 million over "allowable charges" billed to Medicare patients in 1976 was ever

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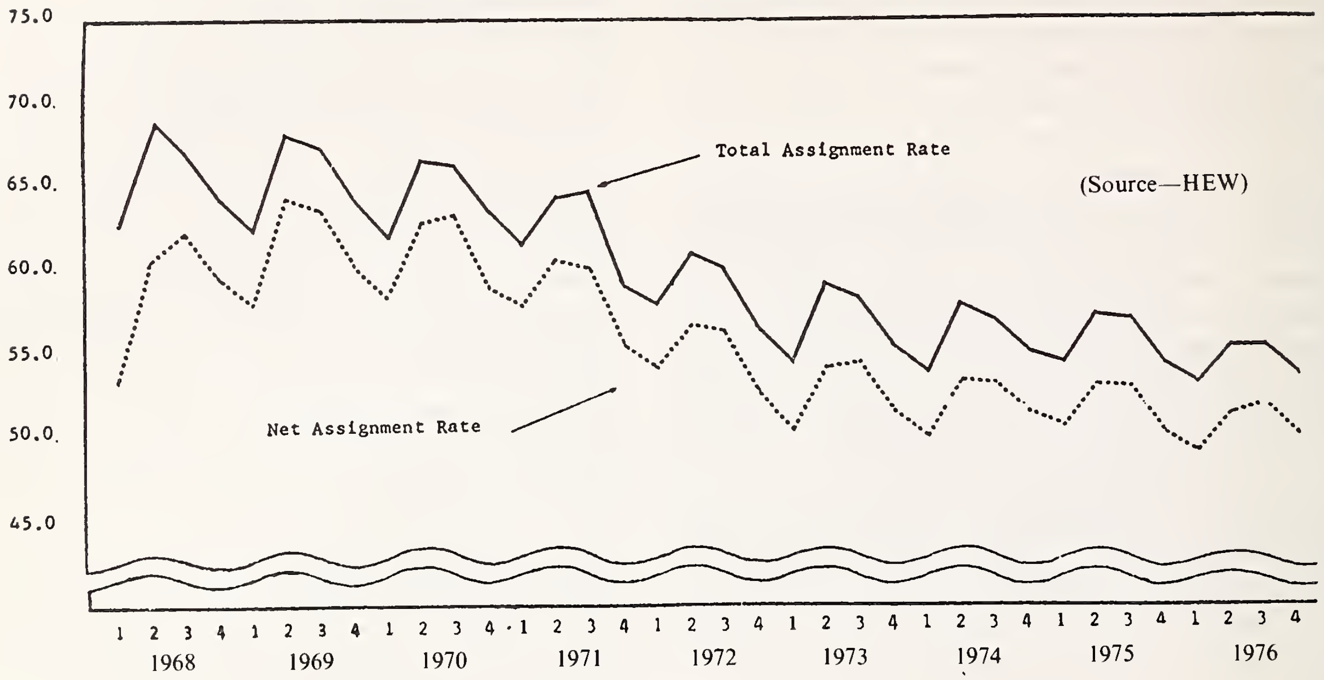
*Source: The AMA Principles of Medical Ethics.

GRAPH: TOTAL AND NET ASSIGNMENT RATE CALENDAR QUARTERS 1968-1976 (NATIONWIDE)



(Source—HEW)

actually collected by physicians declining to accept assignment, particularly from patients of modest means. The total disallowed charge-figure for 1976 represents only 11.5% more than the total of allowable charges—a considerable amount but not necessarily unreasonable or even unexpected when viewed in relation to the over-all financial status of the area's elderly population. Some 22% of the heads of households* over 65 years of age have annual incomes exceeding $12,000 and about 16% have incomes of $15,000 or more. It may be assumed that, normally, persons in the latter income bracket would not be likely to request or expect the physician to reduce his usual, customary and reasonable charge for a service rendered.

Of equal significance, it is also unknown what percentage of the 20% co-insurance portion is ever actually collected from patients by physicians, whether assignment has been accepted or not, nor do we know how much of the $60 deductible is ever actually collected. Both this $60 and the 20% are part of the "allowable charge," but never paid by Medicare.

Although about one-half of Medicare eligible patients elect to purchase supplemental insurance, such as CMS 65, CG's data show that less than one-third of patients indicate a supplemental carrier on their Medicare claims forms. This is evidence that even when supplemental insurance is in force, it is being underutilized. (Many elderly patients may not even know that they are so insured.)

It is entirely possible that much of the $10 million in physicians' billings over allowable charges in 1976 was offset by non-collection of some of 10 million dollars' worth of annual $60 deductibles and an estimated 15 million dollars' worth of 20% co-insurance, both of which are included in allowable charges but not actually paid by Medicare to either physicians or patients.

The $60 Deductible Dilemma

The $60 deductible is probably the most damaging element of the plan in terms of both physician and patient dissatisfaction. This is shown in a graph from HEW (See Graph) which shows the assignment rate at its lowest ebb in the first quarter of each year, when the $60 deductible has usually not yet been met.

When a physician accepts assignment, he agrees to consider the Medicare allowable as payment in full. But patients often do not understand that what Medicare "allows" and what Medicare actually pays are two different things. A prevailing charge may be allowed by Medicare, but often little or nothing will actually be paid. In no case will more than 80% of the profile or prevailing rate be paid, whichever is lower.

There is substantial reason to believe that the $60 deductible provision of Medicare B, applied anew in each succeeding calendar year, constitutes a major deterrent to acceptance of assigned benefits by many physicians, and a major source of disappointment, frustration and even anger to beneficiaries. The physician who initially was disposed to accept assignment more or less across-the-board has learned from experience that all too often the practice gives rise to problems that try his patience to the breaking point.

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*In the Northeast, (U.S. Dept. of Commerce-1977) Connecticut's percentage would be even higher.

Actual example: Having agreed to accept assignment and having assured his patient that "Medicare will take care of my bill," the physician submitted a claim form to the carrier in the amount of $70 (his usual charge). Several weeks later, he and his patient received notice from the carrier that the "allowable" Medicare payment for his services was only $61; that to satisfy the required deductible, $60 had been subtracted—leaving a balance of $1; and that, minus 20% co-insurance, the total amount paid to the physician (by check) was 80¢.

If a physician accepts assignment, is not paid, and then bills the patient, the patient is understandably irked with his doctor for not being satisfied to accept what Medicare "allows." If the physician, instead, declines to accept assignment and simply bills the patient, then the patient's dissatisfaction is directed toward Medicare, not the doctor.

All in all, Medicare assignment has placed many physicians in an adversary position with their elderly patients, and it is not surprising that so many prefer not to become a party to the assignment contract as is their right under the law. No conclusion is warranted, however, that such physicians are overcharging their elderly patients of modest means or even fully collecting what charges they do make.

The Humane Factor

It may be that the 40% assignment rate, given Connecticut conditions together with the unknown quantity of physician forgiveness of unpaid portions of bills or even outright waiver of charges, reflects compassion and not callousness on the part of physicians at all.

On the other hand, it is undeniable that there are individual cases of hardship that are undiscovered or are being ignored. This applies not just to medical services, but also to housing, nutrition, energy, local and state taxation, and even social security itself, not to mention family life. All sectors should do their own share of "honoring" our collective fathers and mothers. Physicians traditionally have been and should be alert to such opportunities for kindness.

The Society acknowledges and promulgates the concept that acceptance of Medicare assignment is a service that a physician may offer voluntarily to his elderly patients of modest means, and that this is well in keeping with the time-honored principle of medical ethics that the physician's fee "be commensurate with the services rendered and the patient's ability to pay." Since such patients may often be reluctant to request special consideration, out of pride or fear of rebuff, the physician's discreet sensitivity to these situations is of great importance.

RECOMMENDATIONS

The Connecticut State Medical Society, based upon its inquiry into the matter of the current 40% level of acceptance of assigned benefits by Connecticut physicians under Medicare B, recommends:

1. That the Society urge its physician members to seek to determine each Medicare beneficiary's ability to pay usual, customary and reasonable charges without suffering financial hardship, and to consider accepting Medicare B benefits by assignment if such hardship appears probable. This recommendation is in keeping with Medicine's longstanding premise that a full and frank discussion of charges is essential to good patient-physician relationships.
2. That, in recognition of the ever-increasing complexities attendant to Medicare B administration and claims processing, the Society urge its physician members to make every reasonable effort to determine and explain to Medicare patients what benefits they may expect to receive under Medicare B and from supplementary insurance, if any, with respect to payment of the physician's charges for services rendered or to be rendered.
3. That, because (a) the $60 annual deductible requirement appears to be a major cause of confusion and uncertainty to both patients and physicians; because (b) only about 25% of Medicare B patients in Connecticut have supplementary insurance which covers the $60 deductible; and because (c) a number of patients who have this supplementary coverage appear not to utilize it, careful consideration should be given to eliminating the deductible—especially for beneficiaries in reduced circumstances. This could be done by direct government action or by requiring that carriers offering supplementary Medicare B coverage include payment of the $60 deductible (as well as the 20% co-insurance) in all such contracts, with or without government subsidy.
4. That, because a significant contributing factor to higher levels of acceptance of assigned benefits under Medicare B in other New England states appears to be the fact that a single carrier disburses both Medicare B and supplementary insurance benefits, encouragement be given to Connecticut General and Connecticut Medical Service to develop a workable mechanism to assure that payment of *all* benefits due a subscriber to both programs will be made automatically and simultaneously. It is understood that CG-CMS discussion of the possibility of developing such a mechanism has already begun. The resultant safeguard against unutilized supplementary insurance should prove of considerable advantage to patients, and the elimination of duplicative paperwork with its attendant cost would certainly be welcomed by both physicians and patients.
5. That carriers *and* appropriate government agencies be urged to undertake more aggressive direct

promotion and marketing of supplementary insurance among Connecticut's Medicare B enrollees, and that the type of supplementary insurance promoted and marketed be required to include coverage of *both* the $60 annual deductible *and* the 20% co-insurance. The recommendation is based on the experience in Massachusetts and Rhode Island where there appears to be direct connection between the level of such supplementary coverage (60-65%) and the acceptance of assignment under Medicare B (above 76%). In Connecticut, presently, supplementary coverage stands at the 50% level and only 25% of patients have policies that pay the $60 annual deductible.

6. That, in the same vein as (4) and (5) preceding, the Congress give further consideration to the concept of a provision originally contained in the Talmadge Bill (S. 1470) which would have had the Medicare B carrier pay 100% of allowable charges (less the $60 deductible when applicable) to physicians accepting assignment and then assume the responsibility for collecting from patients the 20% co-insurance portion. The Society would recommend that carriers be responsible for collecting from patients or insurers *both* the 20% co-insurance *and* the $60 annual deductible (when applicable), thereby allowing the physician accepting assignment to be paid *all* allowable charges directly by the carrier.

   Relieving physicians of much of the voluminous paperwork now associated with the collection of Medicare B and related benefits, such a provision might well, in itself, promote a higher acceptance of assignment rate. It should be kept in mind that whether a physician's charge is lower, higher or the same as the Medicare "allowable," one of the principal attractions for *not* accepting assignment under current procedures is probably the simplicity of giving the patient a bill for services rendered and leaving it to the patient to claim and receive all entitled benefits.

7. That the Society urge the Department of HEW, from the Secretary down to regional and local officials, to seek to promote good public relations among all concerned with the Medicare program, instead of continuously and publicly flagellating the entire medical profession for the alleged transgressions of a miniscule few of its members. Such promotion would undoubtedly do much to restore confidence in the program among patients and physicians alike.

   The Society has long since gone on record as giving full support to the prosecution of proven cases of Medicare-Medicaid fraud or abuse, but HEW's recent publication of a list of physicians receiving $100,000 or more in Medicare payments in 1976—demonstrated to be more than 60% in gross error—does not reflect a similar cooperative attitude on the part of government or even a simple respect for constitutional due process and the presumption of innocence. Unless case-by-case irregularities are claimed, the public disclosure of such information—even if correct—serves no useful purpose but does carry with it the clear implication that doctors are imposing an unwarranted financial burden on the nation's taxpayers. Disclaimers of such intent and after-the-fact apologies for gross errors do little to repair the damage done, or to assuage the rightful indignation felt by the nation's physicians.

   In this connection, the Society observes most forcefully that, in its opinion, many of the past actions of HEW to alter the Medicare B program and many more that are said to be in the planning stage are not remotely consistent with Section 1801 of the Medicare Law which still reads: "Nothing in this title (XVIII) shall be construed to authorize any Federal officer or employee to exercise any supervision or control over the practice of medicine or the manner in which medical services are provided. . . ."

8. That, because Medicare and Medicaid were enacted as companion programs under P.L. 89-97, active steps be taken by appropriate levels of government to upgrade Connecticut's long underfunded Medicaid Program. There can be little doubt that the grossly substandard payment schedules for all health service providers that have obtained since 1969, that the interminable delays (up to 18 months and more) in compensating providers for services already rendered to beneficiaries, and that the restrictive rules and regulations that often infringe on the right of providers to practice in accordance with good professional judgment have reduced the number of physicians participating in the Medicaid Program. Can there be serious doubt that bad experience with Medicaid has not had a "chilling" effect on their participating via acceptance of assignment in the Medicare Program? Upgrading of the *Medicaid* Program in our state is long overdue and its accomplishment might well have a salutary effect on the *Medicare* assignment rate.

9. That the Society reaffirm its longstanding policy that physicians' charges to *all* patients should be "reasonable" in relation to the levels of "usual and customary" charges currently prevailing in their community area of practice. If, based on these criteria, the reasonableness of the physician's charge is questioned, a patient or third party payor is privileged to submit the question for opinion to the review committee of one of the Society's eight component County Medical Associations having jurisdiction. A discussion of the question with the physician concerned should always precede the taking of such action by a patient or third party.

Computerized Tomography in the Evaluation of an Abdominal Inflammatory Mass

Computerized Tomographic Case of the Month

STEPHEN L.G. ROTHMAN, M.D. AND HIROTSUGA MUNECHIKA, M.D.

This is the first in a series of short case histories which will be presented as "Computerized Tomographic Cases of the Month". The purpose of this series is to familiarize the general medical community with the rapidly growing technique of computerized tomography.

The first CT scanner in Connecticut was installed in July of 1975. It was capable of producing two simultaneous axial images of the brain or the body in approximately five minutes. Since that time the technology has progressed to a stage where an individual axial section can be produced in less than twenty seconds.

Unlike conventional radiography which uses a large diverging X-ray beam and film as the recording medium, the CT body scanner uses a very finely collimated (parallel) fan-shaped X-ray beam and a number of gas or crystal detectors which transforms the incoming radiation into an electrical signal. This signal is converted into a number representing the amount of radiation absorbed by the tissue within the X-ray beam. A very large number of measurements of X-ray attenuation are gathered and fed into a digital computer which calculates the attenuation coefficient for individual squares of the body slice within the scanner. These data are displayed on a television monitor and photographed for permanent record. The image thus displayed is a radiograph of an actual body slice approximately 1 cm thick. Bone, the most dense tissue, appears white; air, the most lucent, appears black. The internal structure of the body is displayed in varying shades of gray between these two extremes.

A.H. is a fifty-three-year-old white female with a twenty-year history of Crohn's disease. Three weeks prior to admission she underwent a right ileocolectomy and ileostomy because of an abscess within the left lower quadrant. She had done poorly at home complaining of abdominal pain, cramps, and shaking chills. Rectal temperature was 100.8°F.

Physical examination on admission revealed a rectal temperature of 99.6°F. Her chest was clear to percussion and ausculation; her abdomen was soft

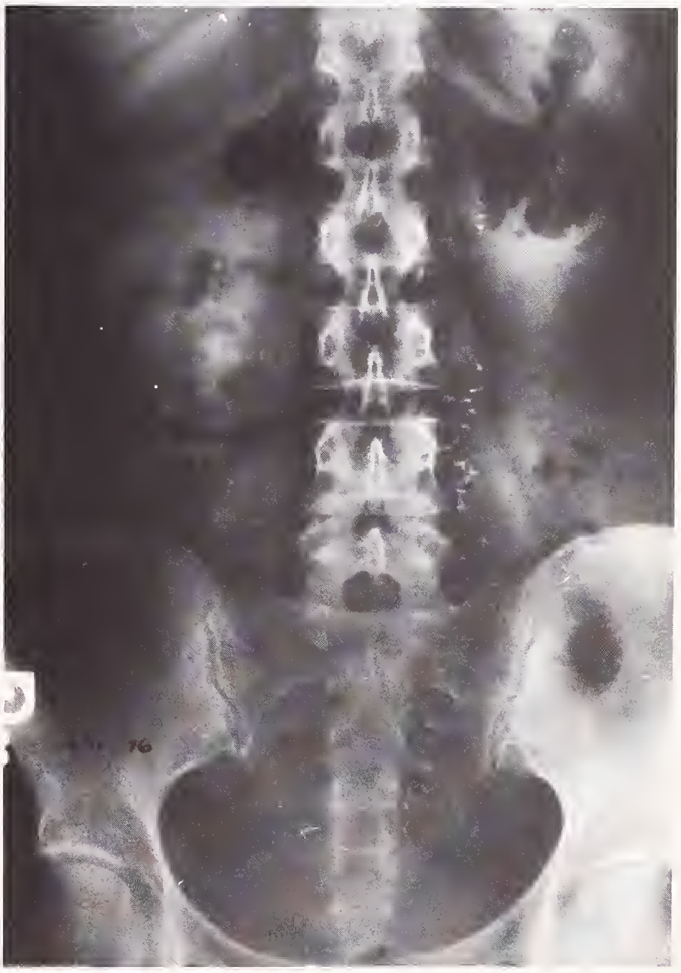

Figure 1

Plain film of the abdomen: Multiple wire sutures are seen overlying the left side of the abdomen. A colostomy is noted in the right upper quadrant.

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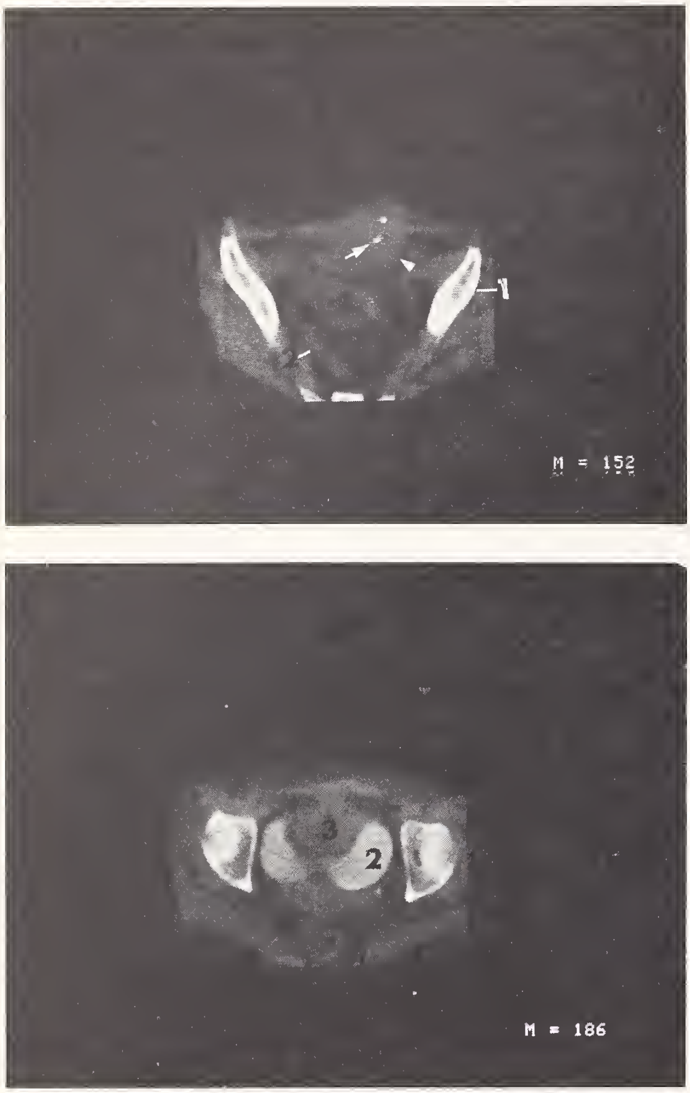

Figure 2
Computerized tomographic scans of the pelvis: (A) A soft tissue mass is noted in the anterior abdominal wall (▲) two high density structures are seen within the abscess (↑). Note also the iliac bones (1), the sigmoid colon (2), and the uterus (3). (B) CT scan at the level of the acetabulae. Note the rectum (1), bladder filled with iodinated contrast media (2) and the abscess (3). The darker tissue represent pelvic fat (4).

and non-tender. There was a midline scar, and ileostomy in the right upper quadrant and a mucous fistula in the midline. Rectal and vaginal examinations were normal. Laboratory survey revealed a normal hematocrit, several white blood cells in the urine and a white blood count of 18,000/mm.^{3}

Hospital Course: She was begun on Ampicillin and Bentamycin but continued to run a low grade fever. Blood cultures were negative. Plain film of the abdomen revealed no evidence of an abdominal mass (Figure 1). CT scan 11 days after admission (Figure 2A) demonstrates a soft tissue mass within the anterior abdominal wall. Two areas of high density material, probably abdominal wall sutures, are seen within the soft tissue mass (▲). A somewhat lower section (Figure 2B) reveals the mass (3 ↑) to be compressing the bladder and indenting it anteriorly. The scan was interpreted, as showing a sutural abscess in the anterior abdominal wall. Two days later 50-100 cc of purulent material drained from the midline abdominal wound, and the patient became afebrile.

Discussion

On computerized tomographic scans it is possible to identify the abdominal and retroperitoneal viscera because they are separated by a small amount of fat. The attenuation of X-rays is lower in fat than in the remainder of the abdominal organs. Fat, therefore, appears darker on the scan than normal abdominal organs. The attenuation coefficient for normal tissue and tumorous or inflammatory lesions is quite similar, making differentiation quite difficult. Masses within the abdomen can be diagnosed most easily by noting distortion of organ shape, contour and size.

This case is a good example of a soft tissue mass compressing the bladder. The precise diagnosis can only be made after synthesis of the history, physical examination, and all routine radiographic examinations.

Emergency Care and Evaluation of the Alcohol Patient

(Second of Two Parts)

J. KEVIN KINSELLA, ED.D., M.P.H. AND ARTHUR AFRICANO, M.D.

IV. Inpatient Hospital Treatment

A. *Inpatient Care*—During hospitalization for a serious medical surgical-psychiatric condition, a proper treatment regimen for the alcohol patient care should include adjunctive medical therapy, i.e., vitamins, diet, etc., and, most importantly, initiation of treatment for the disease of alcoholism. Because of various economic and social factors, alcoholism is rarely discussed from a causal or etiological standpoint. Personal testimony of many recovered alcoholics recount multiple hospital admissions for medical problems directly related to abusive drinking, yet alcoholism as a primary diagnosis is rarely recorded by physicians or hospital staff. With the amelioration of the associated social and economic stigma and an increased awareness on the part of the physician and treatment team, the diagnosis of alcoholism should appear more frequently on patient records. Following diagnosis, a discussion should take place between the physician and the patient which would introduce the topic in a sensitive and clear manner concentrating not only on the physical effects of alcoholism on the major organ systems, but also on the multitude of psychological and social sequela.

After discussion of the alcoholism diagnosis, the physician should encourage the patient to seek further treatment for alcoholism. Ideally, this may be accomplished by arranging for the first contact with the community program to take place before discharge. For hospitals with volunteer A.A. programs, patients should be encouraged to attend meetings while still receiving inpatient medical care.

B. *Inpatient Psychiatric Care and Hospital Alcohol Programs*—Patients who are evaluated in hospitals with psychiatric or alcohol services are often admitted directly to those services from the emergency room. Programs such as these usually last three to five days for detoxification and 15 days for intensive rehabilitation. Admission is usually predicated on ability to pay and probability of success. Referral and community follow-up as well as the initiation of the treatment of alcoholism are essential, as in the care of inpatient medical care.

C. *Police or Commitment*—Violent patients brought to the emergency room by the police and/or patients who become obstreperous during the course of initial treatment and evaluation should be released directly to the police upon completion of care with medical clearance. It is important to keep in mind that while alcoholism and its various complications are considered a disease, this definitional process does not relieve the patient from societal responsibility. If the patient violates the law or infringes on the rights of others, criminal justice authorities should be informed. This violation of law usually takes the form of excessive verbal and/or physical assaultive behavior.

Alcohol patients for whom community or hospital care is not appropriate and who are incapacitated as a result of use of alcohol, commitment to a state mental health facility for a period of three days is permitted under conditions specified in Chapter 304c of the Connecticut General Statutes. Patients who exhibit behavior manifestations more closely related with psychiatric disorder may be committed according to Section 4 of Connecticut P.A. 76-227 which allows for a fifteen-day emergency physician's certificate.

V. Post Hospital Referral and Alcohol Treatment

A. *Medical Treatment*—Following inpatient care for medical conditions, patients are often referred to outpatient clinics or specialists in community practice. In most cases this medical care is limited in that it does not include simultaneous therapy for alcoholism and often is viewed as an end all. Continued medical therapy as the sole mode of aftercare following hospitalization may result in increasing patient susceptibility to further biological and psychological dysfunction. In such situations, intervention and motivation by the primary care physician towards concomitant alcoholism treatment is warranted and highly recommended.

B. *Alcohol Treatment*—For communities with free standing detoxification facilities, referral from the emergency room is most frequent and provides the optimum system of patient care. Other sources of referral for alcohol treatment are: day treatment programs, outpatient alcohol clinics, psychiatric clinics, minimum alcohol treatment via therapeutic shelters and private therapy with mental health professionals. Choosing the most appropriate modality of care depends on a knowledge of cummunity programs and patient history. Every effort should be made to engage the patient in this process and use the opportunity to make suggestions and initiate discussion on behavior goals and objectives. The most important avenue of referral is Alcoholics Anonymous. Very often referral to A.A. can be expedited by volunteer programs in the emergency room, on the various inpatient services, or by attendance at in-hospital A.A. meetings.

Regardless of the modality of alcohol treatment selected, the total health care process from the point of entry to post-hospital referral should be viewed as a continuum with particular emphasis being placed on ongoing treatment for the disease of alcoholism.

C. *No Treatment*—Some patients who enter the emergency room in an intoxicated state with no medical complications will not require or will refuse further treatment. Following stabilization and minimal care, these patients can be released to a responsible third party or on their own recognizance for self care at home. If the patient has no home, the hospital has a responsibility to assist him in obtaining shelter. Usually mechanisms for such referral exist or can be best established by the hospital's social service department.

Discussion and Conclusion

The emphasis on patient flow in the proposed model is intended to remind physicians and other health care professionals that there exists a variety of treatments and referrals which are appropriate, and sometimes necessary, for proper care of the alcohol patient. The system, as described, is not intended to be all encompassing, rather, only certain common or problematic aspects of diagnosis and treatment have been highlighted. Hopefully, such a model can serve as a guide for physicians and community health care agencies which can be adapted and utilized according to local resources and facilities.

The method of arrival is a key factor which affects the initial triage and entry process. Many alcohol patients arrive via emergency transport in need of immediate medical care for trauma and serious medical conditions. These patients, along with those who come voluntarily to the emergency room for alcohol treatment referral (community detoxification) present the least difficulty in the assessment process in that the role of the emergency room staff is explicit-medical treatment and admission and/or medical examination and referral to a community-based alcohol treatment facility. Patients who arrive in the protective custody of police can present a more complex situation. Often such cases involve examination of patients who are not cooperative, frequently are abusive and are not interested in beginning treatment for alcoholism. Management of these cases will at times test the skills of the emergency room staff to insure that the health and the rights of the patient are safeguarded while at the same time the spirit and intent of the legislative mandate is fulfilled by cooperative and productive interaction between the hospital and criminal justice authorities.

The evaluation/triage phase and the initial treatment phase, while presented as distinct sections, operate functionally as an aggregate period-in-time during which the presenting patient is seen, evaluated and care inaugurated. While those patients requiring acute care are somewhat easily defined and diagnosed, others who have had substantial alcohol intake and may or may not have related medical conditions present more problematic cases. Patients in this category are evaluated using the suggested indicies for determination of alcohol state and other clinical indicators, and are then released, referred for inpatient care, or held for observation. In all these cases, emergency room personnel must exercise proficiency not only in the practice of medicine but also in the areas of individual and community relations.

A majority of the individuals who come to the emergency room as alcohol patients will be voluntary, will cooperate, will not repeat, and both patient and hospital will benefit from the encounter. Another group of patients (who represent less than 10% of the total population who suffer from alcoholism) will be brought to the emergency room in the protective custody of the police, and/or will be uncooperative, will create management difficulties, will repeat often and appear never to get well. According to these descriptive characteristics, alcohol patients present a composite picture quite similar to any random sub-group of individuals who utilize the services of the emergency room. However, the very major difference can be found in the social and chronic nature of the illness and the response of providers of health care to those suffering from the acute effects of the disease.

It is understandable that emergency room staff may not be overly enthusiastic about treating the inebriate or withdrawing alcoholic, given the pressures of medical crisis and the ever increasing numbers of patients who use and misuse the services of emergency room units. It should be kept in mind, however, that when approached with a professionally accepting, considerate, nonjudgmental attitude, combined at times with a necessary degree of firmness, alcohol patients will be cooperative and open to suggestion within the limits of their alcohol state. In addition to good patient rapport and an understanding of the total disease process, it is essential to proper clinical practice that the treatment team include an individual who has a background and/or a functional knowledge of Alcoholics Anonymous who can serve to initiate community referral and aftercare.

Although it has been demonstrated that alcoholism is a treatable disease, like most forms of chronic illness it is not amenable to high rates of recovery. However, given the proper therapeutic environment, remission can be effected. This paper has attempted to outline a model for providing the beginning stages of care for the alcohol patient and suggests patterns for the development of a comprehensive treatment/rehabilitation system.

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REFERENCES

1. Chapter 304c of the Connecticut General Statutes, Section 17-155k through 17-155ee inclusive, as modified by Public Acts 75-523, 75-528, 75-569 and 76-300. These amendments have been tentatively codified in the 1976 Connecticut Action Plan for Alcoholism Prevention and Treatment, State Alcohol Council, pp. 195-221
2. Comprehensive Alcohol Abuse and Alcoholism Prevention Treatment and Rehabilitation Act, P.L. 91-616, 84 Stat. 1848, 42 USC 218
3. Comprehensive Alcohol Abuse and Alcoholism Prevention Treatment and Rehabilitation Act Amendments of 1974, 42 USC 4581. In addition, see "Admission to General Hospitals of Patients with Alcohol and Other Drug Problems," American Hospital Association, Chicago: Catalog @12M-4/76-5024
4. Section 17-551, as codified in the 1976 Connecticut Action Plan for Alcoholism Prevention and Treatment, State Alcohol Council, p. 197
5. State Alcohol Council, p. 197
6. Sellers E and Kalant H "Alcohol Intoxication and Withdrawal, *N Eng J Med* 294:757-761, 1976
7. Greenblatt DJ and Shader RI: Treatment of the Alcohol Withdrawal Syndrome. In manual of Psychotherapeutics, Practical Psychopharmacology and Psychiatry. Edited by RI Shader Boston: Little and Brown and Co 1975, pp 211-235
8. Morgan RR and Cogan EJ: Acute Alcohol Intoxication, the Disulfiram Reaction, and Methyl Alcohol Intoxication. In the Biology of Alcoholism, Vol. 3 Chemical Pathology. Edited by B Kissin and H Begheiter. New York, Plenum Press, 1974, pp. 163-189
9. Sellers E and Kalant H: pp. 757-761
10. Victor, Maurice: Treatment of Alcohol Intoxication and the Withdrawal Syndrome, A Critical Analysis of the Use of Drugs and Other Forms of Therapy. In Treatment of the Alcohol Withdrawal Syndrome. Edited by F Seixas, New York, National Council on Alcoholism, 1971, 11. 10-25
11. Victor, Maurice: pp. 10-25
12. Sellers E and Kalant H: pp. 757-761
13. O'Brien J and Pet D: Unpublished alcohol treatment regimens. Department of Psychiatry, University of Connecticut School of Medicine
14. Morgan RR and Kiernan E: Manhattan Bowery Project, NYC, Personal Communication
15. Sampliner R and Iber FL: Dephenylhydantoin Control of Alcohol Withdrawal Seizures, Results of a Controlled Study, *JAMA* 230: 1430-1432, 1974
16. Victor M: pp. 10-25
17. Sellers E and Kalant H: pp. 757-761
18. Criteria Committee, National Council on Alcoholism: Criteria for the Diagnosis of Alcoholism, *Amer J Psychiatry,* 129: 2, August 1972, p. 129
19. Slaby AE, Lieb J, Tancredi LR: Handbook of Psychiatric Emergencies, Medical Examination Publishing Co., Inc., Flushing, NY, 1975, p. 50-51
20. Slaby AE, *et al:* p. 44
21. O'Brien J and Pet D

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Month in Washington

Burdened heavily with Administration energy proposals and tax reform measures the first session of the 95th Congress staggers toward adjournment with a number of important health bills still far from resolved.

Among these important health bills are: The Hospital Cost Containment Plan, the HEW Appropriation, a sweeping overhaul of Federal Drug Administration procedures, Medicare and Medicaid amendments, new federal controls over clinical laboratories, aid for rural health clinics, guidelines for genetic research, easing requiring U.S. medical school admission of foreign medical graduates, postponing the proposed saccharin ban, amending the black lung and renal disease programs, expanded aid for maternal and child health care, continued higher pay for federal and military physicians, and excuse from income tax of federal medical scholarship income.

However, the Medicare-Medicaid anti-fraud and abuse bill has won overwhelming House approval on the way to expected final passage this year. Stricken from the measure was a provision to guarantee medical records privacy.

The bill, cleared by a 362-5 vote, vaults PSROs into major monitoring bodies to detect fraud and abuse in federal health programs.

The legislation also directs HEW to develop ambulatory care review methodologies for PSRO use; directs HEW to require capable PSROs to undertake ambulatory care review within two years after designation as a PSRO; makes "competent" PSRO reviews of services conclusive for purposes of federal payment, if the PSRO has entered into a memorandum of understanding.

Fraud and abuse information detected by a PSRO would be provided to federal and state investigative agencies. Patient records in the PSRO would not, however, be subject to subpoena or discovery proceedings in a civil action.

Other provisions of the bill provide:

- increased Medicare penalties by upgrading fraudulent acts from misdemeanors to felonies;
- suspension from participation in Medicare and Medicaid for practitioners convicted of a criminal offense related to involvement in Medicare or Medicaid;
- annual disclosure by Medicare and Medicaid institutional providers of the identity of any person with a five percent or more ownership in the institution;
- authority for subpoenas for information and review of Social Security health programs.

The bill, worked out jointly by the House Ways and Means and House Commerce Committees, also requires HEW to establish uniform reporting systems for health services institutions.

* * * *

Hearings earlier on the Senate version of the House-passed Medicare-Medicaid anti-fraud and abuse bill drew testimony from the AMA as to the importance of providing strong safeguards against the abuse of the confidentiality of patient records. Testifying before the Senate Finance Subcommittee on Health, Robert B. Hunter, M.D., Chairman of the AMA Board of Trustees, said "inappropriate distribution of individual medical records adversely affects the individual's constitutionally protected right of privacy."

Dr. Hunter supported a provision approved by the House Commerce Committee that prohibits PSROs from disclosing to the government PSRO records on individual patients not covered by federal programs without their written consent.

Dr. Hunter said the success of the patient-physician relationship depends to a great extent on the willingness of the patient to discuss freely with his physician all subjects relating to individual health no matter how personal or sensitive. "Should either party feel that this information, discussed privately, will become a matter of public record, the foundation of the patient-physician relationship would be irreparably harmed."

HEW has issued detailed guidelines for health planners that included a goal of fewer than four hospital beds per 1,000 population.

"The guidelines will help put brakes on construction of new hospital bed space and high-cost specialty services such as open-heart surgery and computerized X-ray scanning," said HEW Secretary Joseph Califano.

The proposals, which are not final, would immerse the federal government deeply into allocation of health resources in communities and regions across the nation.

Prepared by the Washington, D.C.
Office of the American Medical Association

Regional Health Systems Agencies, provided in the Health Planning Law and challenged in court by the American Medical Association, not only are told to aim for a four per 1,000 bed ratio, but in later years "will be required to indicate how they will reach a bed population ratio of 3.7 per 1,000," according to HEW.

The current national average is 4.4 beds per 1,000 population. The reductions proposed by HEW would eliminate some 100,000 beds of the present one million beds over the next seven years. The number of beds at present "is significantly in excess of what is actually needed . . . and contributes to the high cost of hospital care with little or no recognizable health benefits," said HEW.

The guidelines propose that there should be an average annual occupancy rate of at least 80 percent for all nonfederal, short-term hospital beds except under extraordinary circumstances. Exceptions would include small rural hospitals and facilities in areas with large seasonal changes in population.

The 205 local HSAs were also advised on obstetrical services, pediatric inpatient services, neonatal intensive care units, open-heart surgery, cardiac catheterization units, radiation therapy, CT scanners, and end-stage renal disease.

A spokesman for the American Hospital Association commented that the proposals were too detailed and would provide less flexibility for local planning agencies if Congress grants HEW the power to put them into effect.

However, three members of the Senate Human Resources Subcommittee on Health—Sens. Edward Kennedy (D-Mass.), Jacob Javits (R-N.Y.), and Richard Schweiker (R-PA)—wrote Secretary Califano that they were pleased that HEW has "bitten the bullet." The time has come, they said, "to set numerical standards."

If the recommendations were accomplished, HEW officials said, the nation would save more than $2 billion annually. HEW pins its hopes for the guidelines on Congress approving a law giving the federal government more teeth over localities in enforcing and mandating standards. The planning law comes before Congress for extension and revision next year.

In addition to the number of beds and occupancy rate recommendations, here is what the proposed regs set forth:

- Obstetrical services: there should be at least 2,000 deliveries annually in an obstetrical unit located in an area with a population of 100,000 or more and at least 500 deliveries in any unit located in an area with a smaller population.

"In view of declining birth rates and the mounting underutilization of obstetrical beds, obstetrical standards for the minimum number of deliveries and occupancy rates are designed to discourage unnecessary duplication and inappropriate proliferation of services, and to maintain quality of care," said HEW.

- Pediatric inpatient services: there should be a minimum of 20 beds in a pediatric unit, except in rural areas.

Pediatric units should maintain average annual occupancy rates related to the number of pediatric beds (exclusive of neonatal intensive care units) in the facility. For a facility with 20-39 pediatric beds, the average annual occupancy rate should be at least 65 percent; for a facility with 40-79 pediatric beds, the average annual occupancy rate should be at least 75 percent; for facilities with 80 or more pediatric beds. the average annual occupancy rate should be at least 80 percent.

- Neonatal intensive care units: the total number of neonatal intensive care beds should not exceed four per thousand live births per year in a defined neonatal service area. A single neonatal intensive care unit should contain a minimum of 20 beds.
- Open-heart surgery: there should be a minimum of 200 procedures performed annually in any institution in which open-heart surgery is performed. No new open heart units should be opened unless each existing or previously approved unit in the health service area (or areas) to be served is operating and is expected to continue to operate at a minimum of 350 open-heart surgery cases per year.
- Cardiac catheterization: there should be a minimum of 300 procedures (intracardiac and/or coronary artery catheterization) performed annually in any adult cardiac catheterization unit plus a minimum of 150 cardiac catheterizations performed annually in any pediatric cardiac catheterization unit. No new cardiac catheterization units opened in any facility not performing open-heart surgery. No new adult cardiac catheterization units opened unless the projected number of studies per year is greater than 500.
- Radiation therapy: a megavoltage radiation therapy unit should serve a population of at least 150,000 persons or at least 450 new cancer cases per year. No new megavoltage units opened unless each existing or approved megavoltage unit in the Health Service Area(s) is performing and is expected to continue to perform at least 7,500 treatments per year.
- Computed tomographic scanners: computed tomoner (head and body) should operate at a minimum of 2,500 patient procedures per year. There should be no CT scanners approved unless each existing or approved CT scanner in the service area is performing at a rate greater than 4,000 patient procedures per year.

- End-stage renal disease: the health systems plans established by Health Systems Agencies should be consistent with standards and procedures contained in the HEW regulations governing conditions for coverage of suppliers of end-stage renal disease services.

* * * *

At the request of President Carter, the HEW Department is developing recommendations for a national health insurance (NHI) proposal to be introduced into the Congress early next year.

In order to obtain a wide range of views on NHI, Secretary Califano has asked each of the HEW regional offices to solicit the views and recommendations of concerned citizens in their area.

The AMA via state medical societies has encouraged selected physicians to attend some 100 scheduled meetings across the country in order to present the viewpoints of the medical profession.

* * * *

Eight months after publication of a botched list of physicians receiving substantial Medicare payments in 1975, the government has published a new list reworked from top to bottom. After a protest last spring from the AMA over the high error rate, HEW Secretary Califano apologized and promised release of a corrected list.

Last March, responding to requests from the news media, HEW printed the names and amounts received of 409 physicians and 1,750 groups that did more than 100,000 of Medicare business in 1975. The Freedom of Information Law compelled this disclosure, HEW said.

The AMA checked the original list and found, in a sizable sample, an error rate of more than 60 percent.

HEW officials have announced that next time they will list all physicians who received any Medicare payments at all in 1976. Estimated costs to the government of preparing this annual listing is from 700,000 to $1 million at the start and some $300,000 annually afterward. No estimates have been made of how much added cost would fall on the carriers who have prime responsibility for gathering such data.

* * * *

Dr. Mongan was selected by HEW for the new post where the physician will report to Secretary Califano and to Assistant Secretary for Health, Julius Richmond, M.D. In announcing the selection, Califano said “I am confident that NHI will emerge as the premier domestic accomplishment of the Carter Administration.”

Dr. Mongan, formerly of San Francisco, was a Public Health Service physician before joining the Finance Committee staff seven years ago.

In another HEW Department personnel move, M. Keith Weikel, Ph.D., acting director of the Medicaid Bureau is resigning to take a post outside of government.

Reflections from the Dean's Office

ROBERT U. MASSEY, M.D.

A colleague recently commented to me that the next ten years would prove to be a fascinating decade for medicine:

> "The whole matter of cost containment and national health insurance will have remarkable effects on medical practice and medical education—with forces pulling in every direction, it will be exciting to watch."
>
> "I think it will be a dangerous time for medicine," I said. "Not really dangerous; the American people have too much common sense to let anything bad happen to something so important."

He may be right, I thought. Events are distorted when they are seen at close range, and their danger is often exaggerated.

The English speaking nations have muddled through difficult times in the past 400 years, managing to keep most of their values intact. I thought then of some other European peoples who shared our values and I was not reassured. Democracy and the values of the Mediterranean lands have both a fragility and durability very much like life itself. Something almost unnoticed slips away, and before it can be saved an essential value is lost; turning back from the cascade is no longer a possibility.

A medical student with whom I later discussed this conversation thought my colleague's optimism had little foundation. He said that even now, in his view, physicians could no longer be single-minded in their sense of obligation to their patients but were rather agents of some "third party," which might be government, an insurance company, an employer, or a regulator. Politicization of medicine, he believed, could only increase because the cascade had already begun. Responsibility, the basis for the ethical nature of the relationship between physician and patient, was now shared with the physician's new masters. The simple transaction between physician and patient which, he believed, had been the rule in some distant time before health insurance had been invented could now not be recovered, short of abolishing health insurance itself.

We both agreed that while that might be one way to control costs, it was unthinkable in the late twentieth century. Past times generally seem less complicated, but in developed societies the transaction between patient and physician has rarely been a simple one; there has almost always been an interested "third party": family, friends, employer, insurance company, or government. Physicians have never been autonomous; theirs is not a society apart, though their arcane knowledge will often make them seem so.

However, medicine now penetrates more deeply into society than it used to. Renée Fox has written of the "medicalization" of society and gives examples of types of behavior which were once regarded as sins, later as crimes, and are now called illnesses. "Because health is both more coveted and more inclusively defined, and because a greater amount of medical therapeutic activity is applied to deviance-defined-as-illness, increasing economic resources are being invested in the health-illness medicine sector of society."[1] In the Soviet Union political deviance is often regarded as insanity.

If deviance is to become disease, then physicians may become the unwilling agents of government whose task is to enforce conformity, just as the Church was impressed into that role in the Middle Ages when deviance was sin.

This is a danger which our Soviet and Argentinian colleagues already know too well.

Debates about cost containment are already taking unexpected turns. Governments are always devoted to increasing tax revenues, concentrating power, and diminishing individual initiatives. Reducing the costs of health care would be of no special interest to government except as the dollars saved can be diverted to tax revenues. Some health care costs are deductible. Money saved from medicare can be used to build other bureaucracies. A medical fee saved could be spent on the lottery. Further, medical care aimed at prolonging life also prolongs social security payments. This may be a cynical view of cost control, but it has not gone unexpressed in some discussions about health policies.

More and more, society is deciding what shall be called illness and is beginning to determine who shall be treated and how, and for how long. These decisions are being made for political and economic reasons with references to highly questionable data.

As my colleague said, it will be an interesting time—for sociologists, historians, and news commentators. It could be a dreary and unproductive decade for medicine and for medical science; but more important, in the interminable debate, the patient will have been forgotten.

ROBERT U. MASSEY, M.D., Dean and Professor of Medicine, University of Connecticut, School of Medicine, Farmington.

REFERENCES

1. Fox RC: "The Medicalization and Demedicalization of Society," Daedalus, 106:9-22, 1977

AMA Challenges in the Courts

One of the professions's major concerns today is government's mounting pressure for increasing regulation of medicine. In response to these challenges, the AMA has taken a new position of advocacy for physicians and the public which has resulted in the AMA's very first lawsuits against the government.

In March 1975, the AMA took HEW to court over its Utilization Review Regulations which required review of all Medicare and Medicaid hospitalizations within 24 hours. The AMA contended the regulations constituted unlawful interference with the rights of physicians and patients. The AMA won its case and HEW withdrew the regulations.

The AMA also initiated legal action against HEW's Maximum Allowable Cost Rule, charging that the rule, which would govern the prescription of drugs for Medicare and Medicaid patients, intrudes on clinical decisions made by physicians. The case is now pending.

The AMA has also joined with co-plaintiffs, the state of North Carolina, the state of Nebraska and the North Carolina Medical Society, in a suit against the Health Planning Act of 1974 which gives the Secretary of HEW sweeping powers over nearly every aspect of health care.

These are just some of the many actions the AMA has taken to protect your rights and interests and the rights and interests of your patients. With your support, it can be even more effective.

Join us.
We can do much more together.

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EDITORIALS

The Local Physician and the Care of the Mentally Ill

This issue of *Connecticut Medicine* contains two articles on Public Act 77-595, Connecticut's new statute governing the civil commitment of mentally ill persons. It is legislation that should interest all physicians. Not only does it specify that examination of patients prior to probate court hearing shall be done by physicians drawn from the general medical community, but it also allows for detention for emergency examination in a general hospital for a period of up to 72 hours. Additionally, the act specifies that, whenever possible, a less restrictive alternative than commitment to a hospital for mental illness must be considered by both the physicians in doing the evaluation for the probate court and by the judge in making his decision.

I mention these examples to illustrate a major thrust of the legislation: the care of the mentally ill should, as much as possible, be by local physicians, in local hospitals, in the community where the patient lives.

A second principle of this legislation is that the longer the commitment, the greater the safeguards which are required to ensure that no one is deprived of liberty without due process. This maxim was stated by the United States Supreme Court in 1972 and again by the Connecticut Supreme Court this year. Accordingly, Public Act 77-595 requires only minimal formal legal procedures for 72 hour detention for emergency examination in a general hospital. It requires moderate formal legal procedures for a 15 day emergency certificate and it requires extensive formal legal procedures for indefinite commitment. The Connecticut Legislature was well aware of the conflict that often arises between protection of a patient's liberties and the free exercise of medical judgement in the interests of the patient's health. Public Act 77-595 was written to preserve the free exercise of medical judgement as much as possible.

This commendable legislative intent will become a reality only if the medical community becomes actively involved in the care of the seriously mentally ill. The local physician (be it psychiatrist or generalist) is now the first stop for the acutely ill psychiatric patient brought to the general hospital for emergency examination. The minimum of legal involvement under this circumstance gives the physician maximum freedom to exercise his medical judgement. The hope is that many patients can be successfully treated in their local hospitals and will not need to be sent to state facilities under formal legal hold. Similarly, the requirement that physicians doing probate examinations consider the availability of less restrictive alternatives in the community should also lead to greater local care of the mentally ill.

I have been most encouraged by the number of Connecticut physicians who have volunteered to make themselves available for probate evaluations. I look forward to the participation of our general hospitals in making emergency examinations and crisis treatment available for our acutely ill psychiatric patients. For too long, the care of the seriously mentally ill has been separated from the mainstream of medical care. Public Act 77-595 presents us with an opportunity to return that care to where it belongs.

Eric A. Plaut, M.D.,
Commissioner

State Department of Mental Health
Hartford, CT

Letters to the Editor

Letters to the Editor are welcomed and will be published, if found suitable, as space permits. Like other material submitted for publication, they must be typewritten *double spaced* (including references), must not exceed 1½ pages in length and will be subject to editing and possible abridgment.

CHIROPRACTORS AND BLOOD TESTS

To the Editor: In a directive dated May 6, 1975, Directors of Clinical Laboratories were informed that, pursuant to a permanent injunction granted by the Court of Common Pleas, chiropractors might legally submit specimens of blood and urine to clinical laboratories.

Inasmuch as chiropractic is not ordinarily considered a medical discipline requiring an in depth knowledge of physiology, physiologic chemistry and pathology, I thought it would be of interest to Connecticut physicians to learn what sort of tests chiropractors might order.

Several weeks ago I was called by one of the blood drawing team because she did not feel that it was appropriate for her to draw 52 ml of blood from a 2-year-old child for laboratory tests. I agreed and the sample was not drawn.

A chiropractor had ordered the following tests to be performed on two outpatients, a young woman and her two-year-old child:

SMA 6 (glucose, BUN, sodium, potassium, chloride, C02)
Lipase
Amylase
Cortisol
Thiamine
Pyridoxine
Riboflavin
Zinc
Niacin
Vitamin C

The cost for performing these tests most of which we refer to reference laboratories, is $191.60. Apparently such charges are paid by insurance companies.

There was no specification as to fasting state, time of day or such other physiologic variables as are known to affect one or more of these tests.

I find it difficult to comprehend how the information gathered from these tests could be used rationally to diagnose or treat any known human ailment or combination of ailments. I do not find it difficult to visualize how medical costs can be pyramided by performing pointless tests.

Roy N. Barnett, M.D.
Chief of Pathology

Norwalk, CT

MORE ABOUT THE CAT SCANNER

To the Editor: William Karraker's letter in the September issue of *Connecticut Medicine* reflects the obvious amount of time and effort he has diligently put into studying the issue of the C.T. scanner. I believe his conclusions to be short-sighted, however, as they do not take into account the rapidly changing indications for C.T. scanning which make currently available statistics meaningless nor do they take into account the fact that the C.T. scanner is currently the central neuro-diagnostic tool and is essential to the practice of modern neurosurgery. An area with an active neurosurgical service has many patients who are too ill to be transferred and Mr. Karraker's argument that there are a number of nearby C.T. scanners does not solve the problem of the patient who is too ill to be transferred.

Waterbury is the largest medical referral center in Northwestern Connecticut having nearly one thousand hospital beds. For years much clinical neurosurgery has been performed in Waterbury. The full gamut of major intracranial neurosurgery is done here with a large volume of intracranial work. All the neurosurgeons have been trained in major institutions and are board-certified. In addition to having three neurosurgeons, we have two neurologists and a neuroradiologist. It would be a grave injustice to a community that treats so much neurological and neurosurgical disease to deny it an instrument which is currently considered to be the basic neurodiagnostic tool.

I believe that sound health planning is essential for the future development of medical care and it obviously is necessary to curtail the dramatically rising costs. It is necessary, however, for our planners to be farsighted and wise in their decisions or else they will do more harm than good.

Waterbury, CT James E. Finn, M.D.

BOOK REVIEWS

Basic Correlative Echocardiography: Technique and Interpretation. Siegfried J. Kra, M.D., Medical Examination Publishing Company, Inc., Flushing, New York, 1977, 270 pages. $14.00.

As the field of echocardiography has grown during the past five years, numerous texts have been written to keep up with this enlarging discipline. Doctor Kra's book is one of many on the topic, but deals effectively with both techniques and interpretation of echocardiography. The book is quite complete and covers aspects of valvular, congenital, and coronary heart disease. Pericardial effusions, ventricular function, and endocarditis are reviewed in separate chapters. The book ends with a discussion of systemic diseases that may affect the heart. The echocardiographic illustrations are of good quality and provide good teaching examples of the most common pathologic abnormalities. The introductory section is a 60-page "guide to the interpretation of some commonly observed phenomena." This is one of the best and most instructive parts of the text.

Doctor Kra is a strong advocate of the use of echocardiography in office cardiology. However, the limitations of certain echocardiographic findings often are not emphasized as much as would be desirable. An example of this is the inadequacies of M-mode echocardiography in assessing ventricular function in patients with coronary artery disease. The consensus of most echocardiographers is that this technique has limited usefulness in the presence of regional ventricular dysfunction.

In summary, this book is well-suited for either the physician or technician who needs to understand the fundamentals of conventional echocardiography. Unfortunately, newer aspects of two-dimensional phased-array or sector echocardiography are not included.

Harvey J. Berger, M.D.
Department of Diagnostic Radiology
Yale University School of Medicine

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References:
*National Disease & Therapeutic Index, Jan.-Dec., 1976. IMS America Ltd., Ambler, Pa. 1976.
†Amer. Med. Assn., Dept. of Drugs, A.M.A. Drug Evaluations, 2nd Edition, Publishing Sciences Group, Inc., Acton, Mass., 1973, pp. 482-3.

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Summary of Actions
Council Meeting
Wednesday, October 5, 1977

I. Attendance

Present in addition to the Chairman, Dr. D.A. Grendon, and the Vice Chairman, Guy W. Van Syckle, were: Drs. Friedberg, Freedman, Kamens, Backhus, Johnson, Ragland, Jr., Hess, Canzonetti, Bradley, Cramer, Fabro, McGarry, Sadowski, Harkins, James, Krinsky, Sonnen, Whalen, E. Beck, R. Beck, Horrax, Parrella, Barrett and Zlotsky.

Also present were: Mrs. Lindquist, Mr. Sweeney, Mr. Brunell, Mr. Tomat (FCMA), Mrs. Arafeh (CSMS Auxiliary) and Dr. Richards.

Absent were: Drs. Spitz, Mendillo, Jameson, Magram, Eslami and Middleton.

II. Routine Business

Approval of Minutes

As published and distributed, it was VOTED to approve the minutes of the meeting of September 8, 1977.

Life Memberships

It was VOTED to approve applications for Life Membership received from the following eligible Active Members:

Charles B. Cheney, New Haven
Joseph A. Chiota, Bridgeport
Rudolph A. Colmers, Savannah, Georgia
Henry L. Haines, New London
Sidney Luria, Hollywood, Florida
Edwin F. Trautman, Trumbull

Election of Student Members

It was VOTED to elect to Student Membership 17 Connecticut residents who are enrolled in U.S. medical schools.

Date of Next Meeting

The Chairman set the date for the next Council meeting as Thursday, October 27, 1977.

III. Old, New and Special Business

Resignations, Appointments, Etc.

(a) *Committee on Continuing Medical Care and Rehabilitation:* It was VOTED to accept the resignation of Jerome E. Lahman, Rockville, as a member of the Committee.

(b) *Committee to Study Perinatal Morbidity and Mortality:* It was VOTED to appoint Jerome E. Lahman, Rockville, to membership on the Committee.

(c) *Committee on the Medical Aspects of Sports:* It was VOTED to accept the resignation of David M. Brody, formerly of Norwalk, from membership on the Committee. It was further VOTED to appoint Gary A. Gallo, Greenwich, to replace Dr. Brody as a Committee member.

(d) *Health Department "Task Force on Nutrition":* Responding to a request from the State Department of Health that a representative of the Society be appointed to serve on the subject Task Force, the Council VOTED to appoint James L. Bernene, Greenwich, to the post.

(e) *Ad Hoc Committee on Nursing Home Reports:* It was VOTED to accept the resignation of Kurt Pelz, Clinton, as chairman of the Ad Hoc Committee, and to appoint Marjorie A. Purnell, Rockville, to replace Dr. Pelz as chairman. Dr. Purnell is a member of the Committee.

(f) *Committee on Allied Medical Services:* It was VOTED to accept the resignation of Harry R. Gossling, Hartford, as a member of the Committee. It was further VOTED to appoint to Committee membership David A.J. Belman, New Britain, and Arnold H. Becker, Bristol.

(g) *Board of Directors, Greater Hartford Chapter of the American National Red Cross:* On recommendation of Joseph R. Bove, chairman of the Committee on Organ and Tissue Transfers, it was VOTED to appoint Marion F. Baxter, Glastonbury, a member of the Committee, to serve as a CSMS representative on the subject Board of Directors. The Greater Hartford Chapter supervises the financial and administrative affairs of the Red Cross Blood Program in Connecticut.

(h) *AMA Council on Legislation:* It was VOTED to nominate to the AMA Board of Trustees J. Alfred Fabro, Torrington, as a candidate for appointment to membership on the subject AMA Council.

(i) *AMA Ad Hoc Committee on Health Planning:* It was VOTED to nominate to the AMA Board of Trustees Orvan W. Hess, New Haven, as a candidate for appointment to membership on this newly-formed Ad Hoc Committee.

Communications re "Cost-Benefit Effectiveness" Concept

It was VOTED to receive as information two letters from Jerome K. Freedman, New Haven, and a book review published in *New York Times* (5/24/77)—all having to do with a recently published book ("Costs, Risks and Benefits of Surgery") which, in brief, suggests that because the amount of money that can be spent on health care services is finite, it may become prudent to restrict certain services to persons whose expectation of benefit is maximum and, by implication, to withhold certain services from persons whose expectation of benefit is doubtful. After lengthy discussion, it was VOTED to express concern about the possible impact that implementation of the concept of "cost-benefit effectiveness" might have on medicine as it is currently practiced and to instruct the Society's Delegates to AMA to bring this subject up for action at the next AMA meeting; also to refer the matter to the CSMS Judicial Committee for study and report to the Council.

Proposed Reorganization—Connecticut Medical Institute

It was VOTED to receive as information notice that CMI, Inc. has under consideration plans to reorganize its structure and function. The plans include a change in name (such as "The Connecticut Consortium for Health Care Data"), re-allocation of representation on the Board of Directors and amending the Articles of Incorporation and Bylaws to reflect more specifically the contemplated new activities of the corporate body.

The Council VOTED to request the CSMS representatives who serve on the CMI Board of Directors (Drs. Root, Kamens, Magram, Hess and Bonner) to report to the Council at the next meeting (10/27) on further developments re such plans. It was noted that a meeting of the CMI Board was scheduled for 10/6/77.

Report of the President re Meeting on Medicare Assignment Rate

It was VOTED to receive as information a report submitted by President Friedberg on a 9/19/77 meeting of CSMS representatives and a group of interested persons assembled by Commissioner on Aging Ratchford. The purpose of the meeting was to discuss the Medicare B assignment rate in Connecticut and, in particular, the Society's statement on same. It was further VOTED to approve a series of recommendations of the President that stemmed from the meeting, with minor amendments, as follows:

(1) That the Council reaffirm its desire that Medicare B assignment be taken by physicians when patients demonstrate financial hardship.

(2) That the Council authorize continued discussion toward physician participation in forums and seminars on Medicare to be held for persons age 65 years or older.

(3) That when the Council receives assurance from HEW authorities that it would be administratively proper to do so, acquiescence be given to having each physician's Medicare B profile sent to him/her even though such profiles are not requested by the physician.

(4) That the Council instruct the Society's Liaison Committee with the State Department of Social Services to continue to press the Department's Commissioner for more reasonable compensation for physicians' services rendered to Medicaid beneficiaries.

(5) That the Council continue to advocate that there be simplification of Medicare billing procedures to the end that Medicare and supplementary insurance ("CMS 65") claims can be processed at the same time—possibly on the same form.

Report of the President on Joint CSMS-CHA Meeting

It was VOTED to receive as information a report submitted by President Friedberg on a 9/26/77 joint meeting of CSMS and Connecticut Hospital Association representatives at which several matters of mutual interest were discussed at some length. It was further VOTED to act on several recommendations made by the President as follows:

(1) That the Council petition the Commissioner of Health to hold a public hearing (before the Public Health Council) on a regulation proposed for inclusion in the Public Health Code (as an amendment to Section 19-13-D3) concerning the obtaining of "informed consent" for procedures to be performed on hospital in-patients (and presumably on out-patients if hospital premises or facilities are utilized). The regulation would impose responsibility on each hospital for obtaining informed consent through the medium of a policy that would require attending physicians to discharge the hospital's responsibility in a manner acceptable to the hospital.

(2) That the Council extend an invitation to the Connecticut Hospital Association to co-sponsor, with the Society, seminars on MD-influenced hospital costs and to designate representatives to meet with the President's ad hoc committee for the purpose of planning and implementing such seminars.

(3) That the Council authorize the President to develop with the CHA a joint "think tank" group to consider broad issues in a broad framework so that positions, if indicated, may be taken on broad issues as soon as they are current.

Communication re Commission on Hospitals and Health Care

Received as information, without vote, was notice from Governor Grasso that she has reappointed David A. Grendon, Sharon, to membership on the subject Commission to complete the balance of his current term, 1976-81. At its meeting on 9/8/77, the Council voted to urge the Governor to take such action. Dr. Grendon was nominated for the post by the Society in 1976, but amendments to the applicable statutes made by the 1977 General Assembly placed his continued tenure in some doubt.

HEW "National Guidelines for Health Planning"

It was VOTED to receive as information subject material provided by the Louisiana State Medical Society; i.e., excerpts from the *Federal Register*, 9/23/77 concerning proposed national guidelines for Health Systems Agencies with respect to certain mandatory allowable "maximums" and "minimums" re population, hospital beds, special diagnostic and therapeutic equipment, specialized departments, etc. Notice was given that interested parties may submit comments to HEW on or before 11/22/77.

After becoming cognizant of the general thrust of the proposed guidelines, the Council further VOTED that a CSMS "comment" be directed to HEW which would stress the principle that federal guidelines for health planning at the state and local levels should be general and should not require strict conformance with specific federal standards from planning agencies servicing state and local areas.

N.B.: *The foregoing is a summary of the proceedings and actions of the Council on October 5, 1977. Detailed minutes of the meetings are on file at 160 St. Ronan Street, New Haven, for perusal by any interested member of the Society.*

In Memoriam

DE PASQUALE, FRANCIS L., University of Pennsylvania, 1926. Dr. DePasquale was a cardiologist in the Hartford area since 1928. He served in the U.S. Army in World War II for six years, and retired as Brigadier General in 1953. He was a member of the Hartford County Medical Association, the Connecticut State Medical Society and the American Medical Association. Dr. DePasquale died in September, 1977, at the age of 76.

MILONE, JOSEPH E., University of Naples, Italy, 1939. Dr. Milone was a psychiatrist in the New London area since 1957. A veteran of World War II, Dr. Milone entered the United States Army Feb. 16, 1944. At the time of his discharge June 24, 1946, he had attained the rank of captain. He was a member of the New London County Medical Association, the Connecticut State Medical Society and the American Medical Association, and acted as consultant to the Department of Vocational Rehabilitation and the Department of Social Services for the State of Connecticut. Dr. Milone died September 13, 1977, at the age of 62.

NEVULIS, ANTHONY V., University of Vermont Medical College, 1938. Dr. Nevulis was an orthopedic surgeon in the Hartford area since 1939. During World War II he served as a major in the Army Medical Corps and was chief of orthopedics at the 208th General Hospital in Iceland, England and France. He had been associated with the New Britain General Hospital since 1947 and was acting chief of orthopedics from 1968 to 1969. He also was affiliated with Grove Hill Clinic in New Britain from 1948 until his retirement in January of this year. He was a member of the Hartford County Medical Association, the Connecticut State Medical Society and the American Medical Association. Dr. Nevulis died August 18, 1977, at the age of 69.

RESNIK, WILLIAM H., Johns Hopkins Medical School, 1921. Dr. Resnik was an internist in the Fairfield area since 1921, and was a veteran of World War I. He was a member of the Fairfield County Medical Association, the Connecticut State Medical Society and the American Medical Association. Dr. Resnik died August 30, 1977, at the age of 80.

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PHYSICIAN PLACEMENT SERVICE

The Society maintains the Physician Placement Service as a service to the medical profession in the State of Conncticut. Opportunities for physicians to locate in Connecticut will be published as space permits and will be distributed to physicians making inquiry of such opportunities. Information should be sent to 160 St. Ronan Street, New Haven, Connecticut 06511, (203-865-6822).

Physicians wishing to establish practice in Connecticut are invited to submit a resume to be kept on file with the Society. An announcement of a physician's availability will be published in two consecutive issues of *Connecticut Medicine.*

OPPORTUNITIES FOR PRACTICE

(If no name is listed, contact the Physician Placement Service for more details.)

Suitable for all specialties: Physician to share well-equipped modern office in rapidly growing area. Mr. Dick Ross, 1300 Hopmeadow, Simsbury, CT 06070. 203-651-3316.

Family Medicine: Position available with three-man Family Medicine group and a consulting psychologist. Contact Theodore Safford, M.D., Ridgefield Medical Group, 38 Grove Street, Ridgefield, CT 06877.

Family and Industrial private practice on South-Central CT Shoreline. Salary arrangements for six months, partnership negotiated thereafter. Contact CSMS.

Family Practice: Associate wanted for partnership practice. Arrangements negotiable. Attractive community in Fairfield County. Contact CSMS.

General Practice: Excellent GP practice available in Madison. Call 245-2515.

Internal Medicine: Share medical facilities. Laboratory, completely staffed, newly decorated, centrally located in Fairfield County. Call 324-5470.

Internal Medicine: (Cardiology). Cardiology practice and office building for sale in CT. Call evenings 442-3256.

OB-GYN: Board certified. 33-year-old Ob/Gyn physician in New Haven solo practice is seeking board certified or eligible associate. Send C.V. to CSMS to be forwarded.

OB-GYN: Board certified or eligible to associate with young board certified, in rapidly growing practice. Excellent community hospital. New Haven area. Yale appointment by choice. Early partnership. Send C.V. to CSMS to be forwarded.

OB-GYN: Board certified or eligible to practice with young certified Ob/Gyn in northwest CT. Salary followed by partnership. Send C.V. to CSMS to be forwarded.

Psychiatric practice for sale in Eastern CT. Diplomate contemplating retirement. Now working half-time for ample income with minimal expense. Send C.V. to CSMS to be forwarded.

Psychiatry: Exciting opportunity for dynamic part-time or full-time psychiatrist; consult, diagnose, and treat adolescents in expanding psychiatric facility, faculty appointment available. Must be board certified or licensed or eligible for license to practice psychiatry in CT. Salary commensurate with experience, plus excellent fringe benefits. Direct resumes to Superintendent, Adolescent Unit, Connecticut Valley Hospital, P.O. Box 351, Middletown, CT 06457.

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E.M.: Chief of Emergency and Ambulatory Care Services: Board Eligibility or certification required, with two years of post-residency training in hands-on emergency care; experience in critical care medicine, including Trauma. Salary plus benefits. Location a long-time resort area, affords superb family living and recreation. Send resume in confidence to John F. Mirabito, President, Lawrence and Memorial Hospitals, 365 Montauk Ave., New London, CT 06320.

Physicians needed for Social Security Disability Determination. Bd. Cert. or Elig. physicians are needed as agency consultants doing consultative examinations. Exams are scheduled in your office, reimbursement specifics provided upon request. Many specialty fields are needed, especially IM, Orthopedics, Neurology and Psychiatry. Contact Robert P. Coletti, Medical Processing Coordinator, Bureau of Disability Determination, 600 Asylum Avenue, Hartford, CT 06105 or call collect 566-4902.

PHYSICIANS WISHING TO LOCATE IN CONNECTICUT

ANESTHESIOLOGY

Available now. Age 35. Conn. license. FLEX, Elig. Looking for practice only in Fairfield County. M.D. from Thailand. Int. St. Paul's Hosp., Univ. Hosp., MN. 4 years experience in private practice. Contact CSMS.

FAMILY PRACTICE

Available immediately. Age 25. Nat'l. Bds. Pre-med and M.D. from Dalhouie Int. at Royal College Hosp., Canada. Grp. or assoc. practice in large or medium community. Presently in practice. Stephen A. George, M.D., 218 Blue Mountain Rd. #200, Coquitlum, B.C., Canada V3K 4H2.

INDUSTRIAL MEDICINE

Available now. Conn. license. Cert., Nat'l. Bds. M.D. from Harvard. Primarily employee health care or with clinic providing executive medical evaluation and counselling. Interest is in clinical medicine rather than administration. William F. Ketchum, M.D., 221 S. Harvey Ave., Old Park, IL 60302.

INTERNAL MEDICINE

Oct. '77. Age 32. Cert., Nat'l. Bds. M.D. from Univ. of PA. Int. at St. Elizabeth's Hosp., MA. General Internal Medicine with small group in medium community. Robert A. Fitzgerald, M.D., 19 Coulkins Rd., Norwich, CT 06360.

Nov. '77. Age 29. Nat'l. Bds., Elig. M.D. from Med. College of VA. Int. and res. from George Washington Univ. Hosp. Grp. or assoc. practice desired. Presently in practice. Sanford A. Greenhouse, M.D., 7076 Vista Del Mar, LaJolla, CA 92037.

Pulmonary: July '78. Age 29. Nat'l. bds, cert. M.D. from Jefferson Med. Coll., inter. and res. at Cornell, North Shore Univ. Hosp., and Mem. Sloan Kettering Hosp. Presently doing fellowship at Univ. of New Mexico. Grp. or assoc. practice primarily involving chest disease/IM. Especially ICU, bronchoscopy, pulmonary function. Norman H. Braslow, M.D., 8005 Hendrix, N.E., Apt. #622, Albq., NM 87109.

Gastroenterology: July '78. Age 31. Nat'l. bds., Cert-(6/77). M.D. from Univ. of Rochester, int., res. and fellowship at Univ. of VA Hosp. Grp. or assoc. practice desired. Avrum H. Blitzer, M.D., 128-8 Ivy Dr., Charlottesville, VA 22901.

Hematology-Oncology: July '78. Age 32. Nat'l. bds. IM/Cert., H-O/Elig. M.D. from Downstate. Int. and res. at Albert Einstein and Bronx Municipal Hosp. Grp. or assoc. practice with mostly subspeciality, but some IM. Donald C. Brennan, M.D., 3351 S. Port Dr., Sacramento, CA 95826.

INTERNAL MEDICINE

Nephrology: June '78. Age 29. Nat'l. bds., elig. M.D. from Med. Coll. of PA. Int. and Chief res. at NJ Med. School, fellowship at NY Hosp.-Cornell. Interested in practice in IM and/or nephrology with another individual, a group or hospital-based. Lawrence H. Byrd, M.D., 445 E. 68th St., Apt. 4-E, NY 10021.

Gastroenterology: July '78. Age 29. M.D. from NY Univ., inter. and res. at NC Mem. Hosp. Fellowship in GI at Peter Bent Brigham Hosp., Harvard Med. Sch. Solo, grp. or assoc. practice with effective, reliable cross-coverage. Would like to have endoscopy facilities available through a hospital or group. Kevin V. Carey, M.D., 49 Marion St., Apt. 6-C, Brookline, MA 02146.

Nephrology: July '78. Age 28. Nat'l. bds., elig. BA from Yale, M.D. from Tufts, inter. res. and fellowship from NC Baptist Hosp. Grp. or institutional practice desired. Fully trained in dialysis, renal biopsy, transplantation. Ralph J. Caruana, M.D., 2556 Alderney La., Winston-Salem, NC 27103.

Cardiology-Pulmonary: July '78. Age 29. Nat'l. bds, Cert. M.D. from Jefferson Med. Coll. Int. and res. from Indiana Univ. Fellowship in Cardiology from Indiana Univ. and Loyola Univ. and pulmonary fellowship from Univ. of Illinois. Solo, grp., assoc. or hospital based practice desired. Prefers a practice of Cardiology—invasive or non-invasive. Also would do a limited amount of pulmonary depending on the situation. John J. Cassel. M.D., 101 Valley Dr., Bolingbrook, IL 60439.

Oncology-Hematology: July '78. Age 31. Nat'l. bds., cert. M.D. from Pittsburgh Univ. Int. and res. at PA Hosp., fellowship from Univ. of Colorado Med. Center. Grp. or assoc. practice desired. Robert B. Cooper, M.D., 6752A E. Cedar Ave., Denver, CO 80224.

July '78. Age 28. Nat'l. bds. M.D., int. and res. at Univ. of Rochester. Grp. assoc. or institutional practice desired. Paul R. Coutu, M.D., 509 University Park, Rochester, NY 14620.

Cardiology: July '78. Age 29. Nat'l. bds., cert./IM, elig./Cardiology. M.D. from Med. Coll. of Ohio. Int., res. and fellowship from Ohio State Univ. Grp., assoc. or institutional practice desired. Would prefer association with cardiology group involved with both invasive and non-invasive opportunities. Milan R. Dopirak, M.D., 2211 Blackoak, Columbus, OH 43229.

ORTHOPEDICS

Available now. Age 38. Elig. Nat'l. Bds. M.D. and int. at Toronto. Res. at Royal Victoria Hosp. Presently doing fellowship in orthopedic research. Presently in practice. Grp. or assoc. practice in large community desired. Gerald M. Seligman, M.D., 150 Brook Ave., South, Montreal, Quebec, Canada H4X 2E8.

Available now. Age 30. Elig. Nat'l. Bds. M.D. from Duke. Int. and res. at N.Y. Hospital, Cornell Med. Ctr. Also res. at Case Western Reserve Univ. Hosp. Prefers coastal areas of Stamford, New Haven, Bridgeport and Westport but will consider other areas. Grp. or assoc. practice desired. Glen D. Arvan, M.D., 35 Severance Circle Dr., Cleveland Heights, O 44118.

PEDIATRICS

Available immediately. Age 29. Nat'l. bds., cert., M.D. from St. Louis Univ. Int. from Children's Mercy Hosp. Grp. practice desired. Robert Destro, M.D., 215 Hillcrest Dr., DeKalb, IL 60115.

Jan. '78. Age 40. Cert. Presently in practice. M.D. from India. Res. at Harlem Hosp. in Staten Island Hosp., NY. Institutional practice desired in large or medium community. Contact CSMS-Ped.-S.M.Z.I., M.D.

Available immediately. Age 32. FLEX, elig. M.D. from Ceylon. Int. at Staten Island Hosp., res. at Kings County/Downstate Univ. Grp., assoc. or institutional practice desired in medium size community. Contact CSMS-Ped.-W.A.R., M.D.

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Endocrinology: Available now. Age 35. Conn. license pending FLEX, Cert. Res. at MacNeal Hosp., IL, fellowship at Nassau County Med. Ctr., LI, N.Y. Solo or grp. practice preferred. Gupta B. Kuna, M.D., 2028 Court St., Pueblo, CO 81003.

SURGERY

Jan. '78. Age 39. FLEX, elig. M.D. and int. at Univ. of Cape Town, res. in England, Ireland and U.S. also fellowship. Will consider all types of practice in large or medium community. Wishes to do cardiovascular-thoracic surgery or general surgery and thoracic. Amritlal DaJee, M.D., 593 Eddy St., Providence, RI 02902.

Thoracic Cardiovascular: Immediately. Age 38. Elig. Connecticut license by FLEX. M.D. from Iran. Int. and res. at St. Vincent's Hosp., Bridgeport, also res. at Yale-New Haven and Iran General. Grp., assoc. or institutional practice in large or medium community. Presently in practice. Contact CSMS-Surgery-G.F.-H., M.D.

Immediately. Age 31. Elig. M.D. from Dow Med. Coll., int. at Mt. Sinai Hosp., Miami, res. at New Rochelle Hosp., NY. Wishes assoc., grp. or solo practice. Also experience in non-cardiac thoracic surgery and pacemaker insertion. Darayes S. Mobed, M.D., 80 Guion Pl., #11N, New Rochelle, NY 10801.

Early '78. Age 37. Nat'l. bds., elig. M.D. from Univ. of Buffalo. Int. and res. Maricopa County Gen. Hosp., Ariz. Res. from Nassau County Med. Center, NY. Grp. or assoc. practice in med. community. Arnold S. Fabricant, M.D., c/o 252 B. Belmar Rd., Cranbury, NJ 08512.

General Surgery-General Practice: Conn. license. Elig. M.D., from McGill. Int. and res. from St. Vincent's, Bridgeport. Presently in practice. Would like to take over active practice within 25 miles of New Haven or Bridgeport. Contact CSMS-GS-PDH.

Vascular: Age 30. Conn. license. Nat'l. bds., elig. M.D. and res. from Univ. of Oklahoma. Int. from Vanderbilt. Presently doing fellowship at Yale. Part-time assisting in surgery—or emergency room physician. Contact CSMS-VS-JMK.

Jan. '78. Age 37. FLEX. Elig. 12/77. M.D. and int. from Stanley Med. College, India. Presently doing res. at St. Barnabas Med. Center, NJ. I.N. Nayak, M.D., #526, 115 Old Short Hills Rd., West Orange, NJ 07052.

Available now. Age 33. Conn. license. Training in Singapore. Res. Baystate Med., Springfield, MA. Interested in doing E.R. work. Extensive E.R. experience. Pong Ping Cheng, M.D., 677 Bacon Circle, Springfield, MA 01109.

UROLOGY

Jan. '78. Age 45. Connecticut license. Elig. Int. at Middlesex Mem. Hosp., Middletown. Res. at Univ. of Toronto. Presently in practice. Wishes solo, assoc. or institutional practice. Special interest in Pediatric Urology. Contact CSMS-Urology-I.A.D.T., M.D.

Physician Manpower

Over the past 50 years, the physician population in the United States has been growing twice as fast as the general population. Production of new physicians has been accelerating in recent years, while the growth rate of the general population has been slowing.

As a consequence, the physician population since 1970 has been increasing more than four times faster than the U.S. population as a whole.

In 1975, there were about 543 potential patients for every physician in the U.S. In 1970, the ratio was 613 persons per physician; and the figure in 1925 was 781. By 1980, according to an HEW projection, the population per doctor ratio is expected to be reduced to 490.

Part of the reason for growth of physician manpower has been an increase in the number of U.S. medical schools, accompanied by an increase in the annual number of medical school graduates. The 13,561 graduates in the 1975-76 school year were nearly double the number of graduates in 1960-61.

Foreign-trained physicians, too, have contributed to the growth of physician manpower. These include foreign nationals and Americans who received their medical training outside the U.S. or Canada. About one of every five physicians in the U.S. is a foreign medical school graduate. However, the recently enacted Health Professions Assistance Act is expected to decrease somewhat the future role of foreign-trained graduates.

Measures of physician manpower in the U.S. are not precisely comparable with those of other countries, because the criteria for medical education and licensure differ from country to country. (The U.S. standards are among the highest in the world.) Among leading industrial nations, the U.S. has one of the highest ratios of physicians per 100,000 population.

Table 1

NUMBER OF PHYSICIANS COMPARED TO U.S. POPULATION (HISTORICAL TRENDS AND PROJECTIONS)

Year	*Number of physicians**	*Total U.S. population (millions)***	*Physicians per 100,000 population*
1925	148,665	115.8	128
1950	219,997	152.3	144
1960	260,484	180.7	144
1965	292,088	194.3	150
1970	334,028	204.9	163
1975	393,742	213.6	184
Projections:			
1980	457,182	224.0	204
1985	530,705	236.0	225
1990	606,779	247.0	246

* Federal and non-federal physicians.

** 1925 is resident U.S. population; for all other years, includes overseas-based U.S. armed forces.

Sources: (1) Louis J. Goodman, "The Supply and Availability of Physician Services," AMA Center for Health Services Research and Development, March 1977. (2) Projections from HEW, "The Supply of Health Manpower: 1970 Profile and Projections to 1990," 1974.

AMA News Feature.

Table 2

STUDENTS AND GRADUATES IN U.S. MEDICAL AND BASIC SCIENCE SCHOOLS

School Year	*Number of Schools*	*Total Enrollment*	*First Year Enrollment*	*Graduates*
1935-36	77	22,564	6,605	5,183
1950-51	79	26,186	7,177	6,135
1960-61	86	30,288	8,298	6,994
1965-66	88	32,835	8,759	7,574
1970-71	103	40,487	11,348	8,974
1975-76	114	56,244	15,351	13,561
Projection:				
1980-81	114*	Not available	16,063	15,512

*Based on current expansion plans of the present 114 medical schools. (Two or more additional schools are expected to be accredited by 1980.)

Source: American Medical Association, *JAMA*, "Medical Education in the United States," December 27, 1976.

Table 3

NUMBER OF PHYSICIANS PER 100,000 POPULATION IN SELECTED COUNTRIES (1972 DATA)*

Country	*Physicians per 100,000 population*
United States	165
Canada	158
France**	141
West Germany	184
Japan	116
Netherlands	136
Sweden	147
England and Wales	131

* Latest year for which comparable data are available.

** Includes overseas departments of France.

Source: World Health Organization, *World Health Statistics, 1972*, Geneva, 1976.

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VOLUME 41 DECEMBER 1977 NUMBER 12

scientific:

Frank M. Graziano and John M. Dwyer **751** Transfer Factor—Clinical Enigma (First of Two Parts)
Glenn H. Lytle and Ira S. Goldenberg **755** Cecal Hematoma
Hans H. Neumann **756** Slow Virus Diseases
Jose A. Lopez, Robert M. Burd and Kenneth L. Sacks **759** Ectopic ACTH-MSH Production
Carolyn J. Wabrek and Alan J. Wabrek **761** Impotence—A Case Report
Jane W. Barry and Stephen L.G. Rothman **763** Computerized Tomography—The First Line of Investigation in Cranial Trauma

special articles:

Ellen Jodaitis **765** Windham Hospital and the Community it Serves
Gregory Willis and David Bodine **771** Countersuits in Spurious Medical Malpractice Claims
Murray Joseph Casey **776** Estrogens, Menopause and Cancer
National Health Council **793** Federal Trade Commission and Health A Chronology: 1975-1976
Walsh McDermott **796** Future of General Medical Care
American Medical Association **805** Month in Washington

editorials:

Fred Fabro **808** The Hospital and the Community

departments:

Robert U. Massey **807** Reflections from the Dean's Office

Letters to the Editor:

Russell V. Fuldner **810** Doctors—Unjust?
William R. Richards **812** Minutes of Council

general:

809 Book Review
815 Committee Service Questionnaire
816 Physician Placement Service
819 Yearly Index

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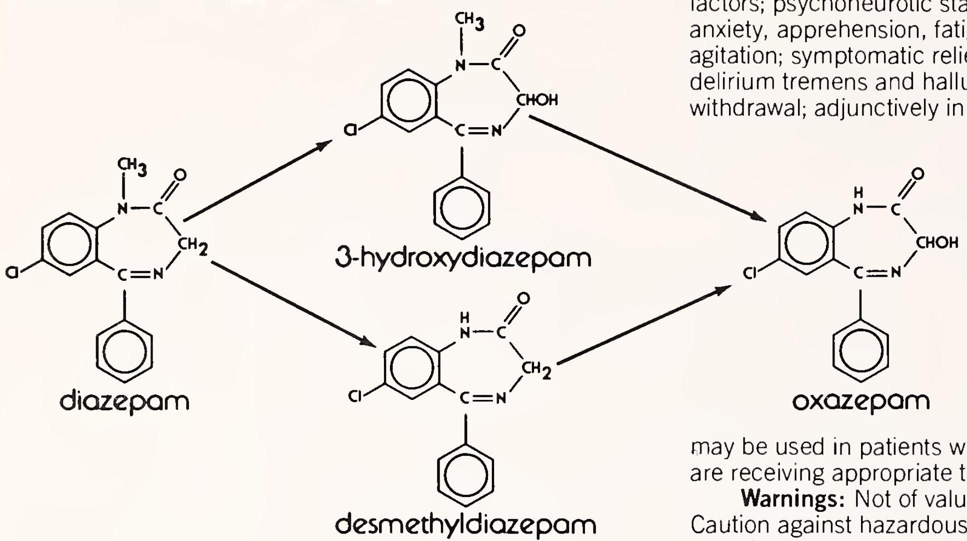

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Transfer Factor—Clinical Enigma

History, Preparation, Properties and Immunology of Transfer Factor

(First of Two Parts)

FRANK M. GRAZIANO, M.D. AND JOHN M. DWYER, M.D., PH.D.

"Transfer factor" is an enigma. While most physicians who administer this drug feel it can be therapeutically beneficial in selected situations, how it works, why it works and what it is are questions that remain unanswered. We have been using it for five years and are still uncertain of the optimal dosage and scheduling. However, if you will accept for the moment our conviction that transfer factor (TF) is useful now, and perhaps will be even more useful in the future, the reasons for both the excitement and frustration that surrounds this agent can be readily presented. We feel that all physicians should be familiar with the story that follows for the associated physiology is important and understanding it will allow a rational appraisal of the many clinical trials now being conducted with TF.

Human Immune Function

Transfer factor is a humoral agent derived from human peripheral blood leukocytes that is claimed to transfer to recipients of the preparation some of the immunological capacities possessed by the donor of the leukocytes. To place this claim in perspective, consider the following:

The human immune system is made up of two major components that act as cooperating weapon systems. For many years these two divisions have been known as humoral immunity (HI) and cell mediated immunity (CMI). The effector cell for both systems is a lymphocyte. While the morphology of the cells involved in HI and CMI is identical, studies of the membrane characteristics and functional activities of lymphocytes have established that these cells belong to one of two broad subclasses. Thus lymphocytes are designated B lymphocytes if they are derived from the bone marrow and T lymphocytes if they are derived from the thymus and they mediate humoral and cell mediated immunity respectively.

B lymphocytes constitute 20% of the circulating lymphocytes in peripheral blood. They are programmed in the bone marrow to manufacture and attach to their surface a receptor that allows them to recognize a specific antigen. Each lymphocyte is capable of recognizing only one antigen and does so by means of specific surface membrane immunoglobulin (SMIg). These cells may be covered with 150,000 such molecules, all identical, all capable of combining with the same antigen and no other. Triggering of the cell by "its" antigen results in division of these B lymphocytes and the production of memory cells, i.e. identical daughter cells, or plasma cells, factories that produce immunoglobulin identical to that used as a receptor on the daughter cell from which they were derived. Plasma cells secrete these immunoglobulins at the rate of 2,000 molecules per second and thus supply circulating effector molecules that mediate humoral immunity. The major physiological role played by B lymphocytes is protection against bacteria and as B lymphocytes have a half life of only eight days they are constantly produced by the bone marrow throughout life.

The majority of circulating lymphocytes in blood are T lymphocytes. These cells are derived from the thymus and although morphologically are identical to the B cells described above, their functions are very different. The thymus produces lymphocytes that are equally specific in terms of antigen recognition as B

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lymphocytes, although the mechanism T cells use for antigen recognition is not as well clarified. When T cells bind with antigen, however, they do not turn into plasma cells but release preformed pharmacologically active agents known as lymphokines that are responsible for inducing the inflammatory response that characterizes a CMI reaction. When seen in the skin these reactions are known as delayed hypersensitivity because of the time required to establish the full reaction. Histologically the delayed hypersensitivity reaction is characterized by perivascular infiltration of lymphocytes in macrophages. CMI is responsible for our defenses against viral, fungal and intracellular bacterial infection, and protects us from some forms of cancer. The thymus also produces two other subclasses of T lymphocytes: (a) helper T cells, cells that help B lymphocytes produce their best quality antibody; and (b) suppressor T cells, or immunoregulatory T cells, which act as an immunological thermostat and regulate both HI and CMI effector reactions. T lymphocytes live for a very long time, probably between 30 and 60 years in man.

Since the early years of this century it had been known that the transfer of serum containing specific antibodies offered a definite, but short-lived, protection against bacteria. In 1942, Landsteiner and Chase[1] discovered that delayed hypersensitivity could be transferred from sensitized donors to nonsensitized recipients using donor leukocytes but not serum. This work was first done in guinea pigs and later confirmed in human studies and the data raised the possibility that immunocompetent cells could be supplied to humans for protection against viruses, fungi, intracellular bacteria, etc. Just how these cells were able to transfer immunity was not understood since they most certainly were destroyed via allograft rejection in the recipient which recognized the donor cells as foreign. It became clear that as a therapeutic strategem the transfer of living cells from one human to another was unlikely to be very satisfactory as (a) the cells would be rapidly rejected by recipients who are even marginally immunocompetent and (b) those individuals receiving competent cells who were themselves so immunodepressed that they could not reject the donated cells might find themselves suffering from graft vs host disease in which the donor cells would attack foreign histocompatibility antigens present in the recipient. While studying this problem and trying to find ways around it, H. Sherwood Lawrence[2] discovered that a dialysate of an extract of disrupted cells could transfer delayed hypersensitivity. He called the substance in the dialysate producing this reaction transfer factor (TF).

Interest and skepticism in TF has waxed and waned over the years owing to the difficulties that will be discussed below in identifying the responsible agent chemically and physically and the extreme difficulties of measuring its activity in an *in vitro* system. In recent years, however, apparently successful clinical results following the administration of transfer factor in various diseases have stimulated a renewed interest in scientific and clinical studies of TF and these studies are summarized below.

The Discovery of Transfer Factor and Its Ability to Transfer Delayed Hypersensitivity

From the beginning of Lawrence's[2] studies on the transfer of delayed hypersensitivity from sensitized to nonsensitized humans, it was apparent that this cellular transfer system varied in many ways from that seen in similar experiments in guinea pigs. Originally, Lawrence was studying the transfer of sensitivity to tuberculin using donors known to be skin test positive to a purified protein derivative of tuberculin (PPD). Differences that Lawrence noted between the human and animal systems related mainly to the number of cells that were effective in transferring delayed hypersensitivity and the duration of the transferred reaction.

In guinea pigs, the cells obtained from as many as five animals were needed to transfer delayed hypersensitivity. The transferred reactivity lasted only for five to seven days when the nonsensitized recipients were not genetically identical to the donors. In humans, as little as 0.1 cc of blood leukocytes from one non-related donor could transfer systemic delayed hypersensitivity reactions to PPD. The appearance of reactivity was usually prompt, appearing from within 6 to 24 hours of cell transfer and the recipients continued to express delayed hypersensitivity for as long as six months to two years after this single injection.

These species differences led to later observations which demonstrated that extracts of human leukocytes were as effective as intact viable cells in the transfer of enduring states of delayed hypersensitivity. In contrast it was found that dead cells or extracts of cells prepared identically to the extracts from human cells could not transfer delayed hypersensitivity among guinea pigs. The material extracted from human cells was termed transfer factor as a convenient shorthand way of allowing for the possibility that more than one factor could be involved in the process. This prompted attempts at isolation and characterization of the active material obtained from blood leukocytes. The major finding of these studies has been that a dialysate of cell extracts could transfer delayed hypersensitivity, suggesting that transfer factor must have a low molecular weight. As with whole cells and cell extracts, dialyzable transfer factor from relatively small numbers of cells was able to transfer the capacity to produce delayed hypersensitivity soon after injection and for many months thereafter.

The enduring alteration in the immune reactivity following introduction of small amounts of transfer factor raised two questions: (1) Is transfer factor merely acting as a signal to initiate a change in the immunological capacity of the recipient's lymphocytes, or (2) Is it being replicated in circulating lymphocytes such that more transfer factor of the same specificity is being made? To test these hypotheses, attempts at serial passage of transfer factor were made.[3] In this system, transfer factor from a donor sensitized to the M-protein from streptococci was transferred to a nonsensitized recipient. After successful transfer of delayed hypersensitivity to the M-protein, transfer factor was made from the leukocytes of the recipient such that he became a donor for a second nonsensitized recipient. The transfer of delayed hypersensitivity by the transfer factor from the newly sensitized donor was again successful and favored the interpretation that transfer factor was being continuously produced by recipients. Attempts, however, to identify highly polymerized DNA, RNA or protein in transfer factor have failed to this date.

Preparation and Chemical Properties of Transfer Factor

In the original method of Lawrence[2] transfer factor was prepared from human blood leukocytes collected from the buffy coat of sensitized donors. The cells were disrupted and dialyzed against distilled water and the dialysate contained transfer factor. Many modifications and variations of this original method have been reported. Today, transfer factor is prepared from leukocyte rich fractions which are disrupted by freezing and thawing, sonication or osmotic lysis. The resultant cell extract is treated with DNAse and/or RNAse to liquify the stroma of cells and subsequently dialyzed against distilled water. The dialysate which contains transfer factor is variously lyophilized or concentrated and stored in solution at 4°C to -70°C for periods of hours to months before use. Studies have shown that transfer factor is stable and able to transfer delayed hypersensitivity after prolonged storage.

The generally accepted but not standardized transfer factor unit (one dose) is considered to be the material obtained from 2×10^9 cells. Attempts at delineation of the cell that is the vehicle for transfer factor have narrowed to a mononuclear subpopulation of lymphocytes. The precise cell that yields transfer factor and the particular cell engaged by it remains unknown.

Just what transfer factor is chemically remains an elusive problem. While its identity has been narrowed to a polynucleotide-polypeptide complex, its precise chemical nature is far from being at hand. It is known that transfer factor has a molecular weight of 2,000-4,000 Daltons and is resistant to the effects of RNAse, DNAse and most proteolytic enzymes. Transfer factor is not immunogenic and is not antibody.

Measurement of Transfer Factor Activity

Many investigators are confident that transfer factor acts as a messenger molecule and imparts specific immonological responsiveness to the lymphocytes of the recipient. If this is true, one would not expect transfer factor to help recipients handle antigens that the donor of the transfer factor had not previously been sensitized to. On the other hand, there are investigators who believe that transfer factor is nothing more than a T cell tonic. It is claimed that transfer factor may act as a superadjuvant amplifying minimal degrees of responsiveness already inherent in the recipient. If either suggestion is correct, transfer factor should be a valuable therapeutic aid but there is no doubt that it would be more beneficial to be able to induce a specific response. Preparations of transfer factor contain other dialysable materials, for example, histamine, ascorbate and serotonin. Some of these substances are known to nonspecifically exert modulating effects on a variety of immunologic and inflammatory responses. It is possible, therefore, that the transfer of delayed hypersensitivity from sensitized donors to nonsensitized recipients may be the result of nonspecific stimulatory effects of these substances alone. As it is established that lymphocytes capable of recognizing and responding to all antigens are present in our bodies prior to exposure to those antigens, transfer factor may simply be selecting out the appropriately specific cell and amplifying a suboptimal response.

The question remains unresolved at this writing and a significant obstacle to clarification of these problems and the characterization and standardization of transfer factor preparations has been the lack of a reliable direct *in vitro* assay for transfer factor potency. To date the *in vivo* appearance of delayed hypersensitivity remains the most reliable test for transfer factor potency.

From *in vivo* studies comes much data supporting the concept that transfer factor can transfer delayed hypersensitivity specific for a particular antigen. Most of this evidence comes from studies in which delayed hypersensitivity reactions have been transferred from donors sensitized to antigens not likely to have been encountered by the recipient. Thus, some subjects have been deliberately sensitized with unusual antigens while other studies have concentrated on the ability of transfer factor prepared from subjects exposed to an antigen that is geographically restricted to transfer delayed hypersensitivity to that antigen when administered to subjects in a different geographical area. The classic experiments demonstrating the latter point have involved the transfer of delayed hypersensitivity to coccidioidin antigen.[4] Coccidiomycosis is a fungal infection endemic in the southwestern part of the United States. It is virtually never found in non-travelers from the east coast. Studies have been done in which transfer factor was obtained from leukocytes of coccidioidin sensitive donors from California and given to lifelong residents of New York. Delayed hypersensitivity to the coccidioidin antigen could be transferred with the prompt onset and prolonged duration (greater than one year) of the sensitivity. The cutaneous injection of incubated mixtures of coccidioidin-negative transfer factor plus coccidioidin antigen failed to transfer the sensitivity. Repeated testing of negative controls with the antigen failed to elicit the cutaneous coccidioidin reaction. This latter point is important as many criticisms have been leveled at transfer factor studies in which patients have been skin tested with an antigen, found to be nonresponsive and have then subsequently developed responsiveness after transfer factor. It is claimed that skin testing with an antigen may establish a weak primary immune response that can be then amplified by non-specific mechanisms by transfer factor.

To confuse the clear picture gathered from the above experiments, suggestions that transfer factor may work nonspecifically have been strengthened by a few studies demonstrating the development of delayed hypersensitivity reactions in recipients receiving transfer factor from nonsensitized donors.[5] Other experiments have shown that recipients may become positive to some antigens that the donor was sensitized to but not others that the donor responded to equally well. Furthermore, the transfer of delayed hypersensitivity using transfer factor from donors deliberately sensitized to artificial antigens has not been consistently successful.

An *in vitro* assay system is urgently required to further scientific investigation of transfer factor. *In vitro* assay systems for transfer factor have been developed to try and avoid the difficulties that are inherent in skin testing and two of the most commonly used *in vitro* assays are the lymphocyte transformation and migration inhibition factor (MIF) tests. Results from these studies are at best suggestive and are not definite. It has been demonstrated that dialysates of leukocyte preparations obtained from sensitized donors can induce DNA synthesis in lymphocytes from nonsensitized patients exposed to the specific antigen in question and transfer factor simultaneously. Similarly, such exposure to antigen and transfer factor can stimulate the release of lymphokines (MIF), the putative mediators of delayed hypersensitivity. The problem with these assays, however, centers on evidence which suggests it is the activity of other soluble factors in the clinical preparation that can be separated from the *in vivo* active transfer factor that is being measured. Thus, with the present assays it is difficult to show specific transfer factor activity and it remains extremely difficult to tell prior to administration if a certain batch of transfer factor is in fact potent.

Animal Models for Transfer Factor

Most of the convincing studies performed with transfer factor have been done in humans. The transfer of delayed hypersensitivity in experimental animals with leukocyte extracts is not achieved with ease and the lack of a suitable animal model has held up basic research. There are many reports describing failure to achieve transfer of delayed hypersensitivity in animals. Why there is this species difference is not known but recently primate models have given some promising results. Research on such animals, however, is extremely expensive and difficult.

Summary

In this review of transfer factor it is pointed out that while analytical information is being gathered, much uncertainty still surrounds the mechanisms of action of transfer factor. The fact that there is a low molecular weight material obtainable from sensitized leukocytes that can transfer to nonsensitized recipients the ability to make delayed hypersensitivity reactions similar to those produced by the donor of the leukocytes has been repeatedly verified and serves as the basis for continuing studies of the clinical efficiency of transfer factor. The issue of specificity has clearly not been totally resolved. One has to consider now the possibility that transfer factor preparations contain both specific and nonspecific components and that successful transfer may require contributions from both elements. How a molecule with such a low molecular weight can transfer a prolonged capacity to make an immunological response is puzzling. Suggestions that transfer factor may endow cells with new genetic properties or providing cells with antigen-specific receptor sites have been made but not substantiated.

Despite the uncertainties and difficulties surrounding the investigation of transfer factor, much data on the potential benefits of transfer factor has come from clinical studies. So encouraging have been these results that despite the deficiencies in our basic knowledge of the chemistry and properties of transfer factor, such clinical studies are increasing. In the second part of this review the information gained in therapeutic trials of transfer factor will be reviewed.

REFERENCES

1. Landsteiner L, Chase MW: Experiments on Transfer of Cutaneous Sensitivity to Simple Compounds. Proc Soc Exp Biol Med 49:688-689, 1942
2. Lawrence HS: Cellular Transfer of Cutaneous Hypersensitivity to Man. Proc Soc Exp Biol Med 71: 516-522, 1949
3. Lawrence HS: Transfer Factor in Cellular Immunity. The Harvey Lecturer, Series 68. Academic Press, 1974
4. Rapaport FT, Lawrence HS, Millar JW, Pappagianis O, Smith CO: Transfer of Delayed Sensitivity to Coccidioidin in Man. J Immunol 84:358-367, 1960
5. Kirkpatrick CH, Gallin JI: Treatment of Infectious and Neoplastic Diseases with Transfer Factor. Oncology 29:46-73, 1974

Cecal Hematoma

An Unusual Cause of Cecal Bleeding

GLENN H. LYTLE, M.D. AND IRA S. GOLDENBERG, M.D.

Introduction

There are numerous causes of cecal bleeding including carcinoma, polyps, and arterio-venous malformations.[1] In addition to these common causes, others less common include localized ulceration of the cecum due to microcirculatory thrombus, nonspecific ulcers, and cecal necrosis secondary to systemic chemotherapy.[2, 3, 4] Ischemia as a cause of cecal bleeding is relatively rare.[5] Blunt trauma as a cause of large bowel injury is also infrequent as well as difficult to diagnose and treat.[6] Recently a patient presented with delayed cecal bleeding secondary to blunt, non-penetrating, non-perforating abdominal trauma.

Case Presentation

H.H., a 34-year-old male, was involved in a motorcycle accident and transferred to Yale-New Haven Hospital after initial resuscitation. The patient on arrival was comatose; initial evaluation revealed evidence of a unilateral hemo-pneumothorax with crepitus along the right thorax. The patient was in shock with a systolic blood pressure of 80 mmHg; the right radial pulse was absent. Abdominal exam was unremarkable with no evidence of distention or external trauma; audible peristalsis was only slightly decreased. His continued hypotension and comatose state led to performance of abdominal lavage using a peritoneal dialysis catheter placed in the midline just below the umbilicus. There was no immediate return of fluid. After instillation of 500 cc of normal saline, the return was negative for blood with a hematocrit of less than 1%.

Chest films revealed evidence of a hematoma in the right chest in the region of the innominate artery. Initial abdominal films were normal. An aortic arch arteriogram was performed which revealed a severed right subclavian artery 2 cm from its origin. The patient was taken immediately to the operating room where his chest was explored through a right thoracotomy incision. A total interruption of the right subclavian artery was found and anastomosed end-to-end.

During the immediate pre-operative, operative, and post-operative period the patient received 27 units of blood and 4 units of fresh frozen plasma. Shock was not present at the end of the operation; controlled ventilation was continued with some necessary sedation. Abdominal examination on the first post-operative day revealed some increased tenderness in the lower quadrants with decreased frequency of bowel sounds. A repeat peritoneal lavage at that time revealed no free blood, no bacteria on gram stain, and a peritoneal fluid amylase of 110 units with a serum amylase of 110 units (normal less than 160 units). His abdominal symptoms subsided over the next 36 hours.

The patient by the fourteenth post-trauma day was fully awake, alert, and able to take nourishment by mouth. On that day he passed several large stools that were mahogany in color and positive for blood; his hematocrit fell from 35% to 23%. The initial clinical diagnosis of gastric stress ulceration was made and a naso-gastric tube was passed; fluid aspirated was negative for blood. Panendoscopy was performed with no source of bleeding visualized. Sigmoidoscopy was also performed and no lower site of bleeding was seen. Angiography was performed which showed a common arterial trunk supplying the distal ileum, cecum, and ascending colon. A branch from this trunk to the lateral aspect of the cecum demonstrated some extravasation of contrast material into the lumen of the cecum.

The patient was taken directly to the operating room. At operation the cecum was found to be firmly attached to the lateral peritoneal reflection with multiple adhesions. An area on the lateral aspect of the cecum was found to be denuded of serosa with visible pouting necrotic mucosa. A right hemi-colectomy was performed.

Pathological examination of the specimen revealed several necrotic lesions, ranging in size from 0.1 cm by 0.3 cm to 5 cm by 5 cm, in the cecal mucosa. The ileocecal valve was found to be necrotic with normal terminal ileum. The findings can be summarized as acute focal necrotic areas of the mucosa and submucosa of the cecum with evidence of old healed injury, findings consistent with ischemic necrosis.

Discussion

An explanation of the findings in this patient is necessarily based on conjecture. To ascribe them to the causes of ischemic bowel disease seems untenable. The patient's age, lack of other evidence of vascular disease, the pathological findings, and the timing of events make vascular ischemia based on usual causes highly unlikely.[2, 5, 7] The patient did have a significant period of hypotension which could easily have led to a relatively low flow state, but the entire colon would have suffered from it almost equally.[8] Since the right colon and cecum are unlikely sites for ischemic bowel disease, there is no reason to suspect that those areas would have suffered more damage than other areas of the colon.[5] A more reasonable explanation is related to the original trauma, based on an acceleration-deceleration injury involving the patient's mobile ileum and his relatively immobile cecum. At the time of trauma, the movement of the ileum in relation to the cecum caused some minimal vessel disruption and development of a cecal hematoma. This formation is

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not unlike the mechanism involved in the syndrome of duodenal hematoma where late sequelae can occur.[9] Colonic hematomas, usually submucosal, have been reported previously, with the usual sequelae being colonic stenosis or more rarely colocutaneous.[6,10] Such hematomas, by direct pressure, can cause an area of ischemia. Experimental models of the human colon are known to recover following up to three hours of total ischemia.[11] The length of partial ischemia necessary for permanent damage to the human colon is not known. Following such an ischemic insult, reorganization and repair of the injured mucosa occur; this process may take weeks.[12] It is reported that colonic hematomas lead to scar formation and usually to subsequent segmental stenosis of the involved segment of bowel.[13] In this case the hematoma probably caused some ischemia of a limited area of the cecum. This injury led eventually to sloughing of serosa and mucosa, vascular disruption, and significant intraluminal hemorrhage with cecal bleeding.

REFERENCES

1. Goligher JC, Duthie HL, Nixon HH: *Surgery of the Anus, Rectum, and Colon.* Charles C. Thomas; page 1097, 1975
2. Hardie IR, Nicoll P: Localized ulceration of the cecum due to microcirculatory thrombus. *Aust NZ J Surg* 43: 149-157, 1973
3. Lazarovitch I, Michowitz M, Lowenthan M, Solwiejczyk M: Nonspecific ulcers of the cecum. *Dis Colon Rectum* 17:381-386, 1974
4. Kingry RL, Hobson RW, Muir RW: Cecal necrosis and perforation with systemic chemotherapy. *Am Surg* 39: 129-133, 1973
5. O'Connell TX, Kadell B, Tompkins RK: Ischemia of the colon. *Surg Gynecol Obstet* 142: 337-342, 1976
6. McKenzie AD, Bell GA: Nonpenetrating injuries of the colon and rectum. *Surg Clin North AM* 52: 735-746, 1972
7. Saegesser F, Sandblom P: Ischemic lesions of the distended colon. *AM J Surg* 129: 309-315, 1975
8. Kaminski DL, Keltner RM, William VL: Ischemic colitis. *Arch Surg* 106: 558-563, 1973
10. Mays ET, Noer RJ: Colonic stenosis after trauma. *J Trauma:* 6: 316-331, 1966
11. Robinson JWL, Haroud M, Winistorfer B, Mirkovitch V: Recovery of function and structure of dog ileum and colon following two hours acute ischemia. *Eur J Clin Invest* 4: 443-452, 1974
12. Glotzer DJ, Villegas AH, Ahekamaya S, Shaw RS: Healing of the intestine in experimental bowel infarction. *Ann Surg* 155: 183, 1962
13. Altner PC: Constrictive lesions of the colon due to blunt trauma to the abdomen. *Surg Gynecol Obstet* 118: 1257, 1964

Slow Virus Diseases

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There is accumulating evidence that an increasing number of etiologically obscure diseases may be linked to the little understood slow viruses. All these disorders present a picture of slow but relentless degeneration of the central nervous system, and no effective treatment has yet been found that can alter or control their course.

The slow viruses themselves appear to be among the most virulent pathogens affecting humans, with death being the nearly inevitable conclusion in those who develop the clinical disease. These viruses are not only highly pathogenic but are extremely resistant to conventional methods of sterilization. Much in this field has been accomplished by experimental work with viral transfers to animals. However, this research has produced a great deal of equivocal information tempting researchers to draw speculative conclusions from the elusive and controversial evidence.

Four diseases associated with slow virus infection have been extensively studied and documented; two are found in humans, Creutzfeld-Jacob disease and Kuru, and two are found in animals, scrapie in sheep and a similar disease in mink. There are also other chronic disorders with postulated or possible etiological links to slow viruses; they will be mentioned later.

What is a Slow Virus?

What is it that establishes the slow viruses as a distinct subgroup of viral pathogens? Two of the characteristics have been mentioned above: 1) the selective involvement of the nervous system and 2) the progressive degenerative process leading almost invariably to death. In addition to these characteristics is a long initial incubation period after infection during which no clinical symptoms are present. This phase, in contrast to other viruses, may last months or even years. Also characteristic is the failure of the slow viruses to elicit a significant immune response in the host, including a lack of

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interferon protection and insufficient antibody and lymphocyte production.

The slow viruses should also be distinguished from other viruses that may remain "latent" in the body for long periods of time such as in rabies, herpes simplex and serum hepatitis, in addition to still others we know little about because they may be pathogenic only in immuno-deficient individuals. There appears to be no sharp cut-off between the incubation periods of slow and latent viruses, but a notable difference is that a latent virus may produce an acute disease after a long incubation time yet does not demonstrate the slow inevitable progress characteristic of the slow virus.

The Clinical Picture

The clinical symptoms of slow virus diseases may vary over a broad range. Characteristic is their extended duration associated with progressive neurological degeneration leading to a loss of physical and mental functions and, finally, incapacitation and death.

Creutzfeldt-Jacob disease, first described in the 1920's, has a vague onset followed by more obvious mental deterioration leading to death within two years. The symptoms vary with the distribution of the lesions and degenerative changes of the CNS but may include early blindness, disorientation, ataxia, and spasticity. This is a rare disease observed throughout the world, occurring in both sexes between the ages of 35 to 65. It is of interest that 5% of Creutzfeldt-Jacob patients have a history of neurosurgery.

Kuru, the other well-documented human slow virus disease, occurs, or rather occurred, only in the primitive Fore people in the highlands of New Guinea. The high incidence of this disease among this isolated people is suspected of having been associated with a cannibalistic ritual which requires the ingestion of dead relatives, particularly the brains. The transmission of this disease appears to have been halted since this practice was officially discouraged.

In contrast to Creutzfeldt-Jacob disease, kuru displays a rather uniform clinical picture showing increasing ataxia, tremor and progressive dementia in all cases. Death invariably follows within two years.

There has been much speculation concerning the selective affinity for the central nervous system observed in slow but not in fast viruses. Some researchers suggest that the observation may be more apparent than real. It is possible that the slow disorganization of other organ systems may not produce overt symptoms, as the functions of destroyed cells may be taken over by other uninfected cells. Such adaptability and regeneration capabilities present in other tissues are lacking in the central nervous system and therefore any damage done to this system will be permanent. Evidence has recently been found indicating that slow viruses are, in fact, present in other tissues. In at least two documented cases, Creutzfeldt-Jacob disease has been transmitted by corneal transplants.

Although slow virus disease is relatively rare, slow viruses themselves are probably present more often than detected. The incubation period may be so extensive in some cases that it exceeds the lifetime of the individual, hence, the failure to develop overt clinical signs of disease.

Presumptive Slow Virus Diseases

There remain a number of disorders suspected of being slow virus diseases. The evidence establishing a link is as yet tenuous; and, to date, there have been no clear demonstrations of this relationship, either by transmission of the diseases to other species, as was done by D.C. Gajdusek of the National Institute of Health who was able to induce kuru in chimpanzees, or by in vitro growth of the suspected viral agents. The diseases described below are among those of possible viral etiology.

Progressive multifocal leucoencephalopathy (PML) is a disease which usually presents itself first with hemiparesis. This may be followed by dementia, aphasia, visual disturbances and eventually death. The etiological agent appears to be a polyoma-virus that may commonly infect humans without causing disease except during phases of immuno-deficiencies.

Subacute sclerosing panencephalitis (SSPE) primarily affects children of school age. This disease, in contrast to the others, may occasionally begin with a short acute phase with fever. There is a gradual progression of symptoms which include mental deterioration, visual disturbances, and muscular contractions. It gradually leads to coma, and patients usually die of super-imposed infections. The illness may last for several years, and remissions may occur but usually there is a slow and steady deterioration.

There appears to be some relationship of the SSPE virus to the measles virus and there is speculation whether a SSPE virus might be a neurotropic variant of the measles virus. However, it is unknown how a virus could be altered in such a way that a slow virus would be the outcome.

Epidemiological data from *multiple sclerosis* suggest an infectious etiology combined with a possible auto-immune response to the infectious process, but the evidence is not clear. Its onset, between the ages of 20 and 40, is usually slow and insidious, although as in SSPE the onset may be abrupt. The array of symptoms is similar to other slow virus diseases, except that intellectual changes are less a feature of MS than emotional changes. Remissions are common, and the course may be protracted over 20, even 50 years. Death is usually due to intercurrent infection.

Two other diseases also have an implied slow virus origin: *Pick's disease,* or *presenile dementia,* and *chronic poly-myositis* which affects mainly the muscles. Both of these diseases result in death several years after onset.

While the evidence classifying the above illnesses as "slow virus diseases" is circumstantial, the link for a number of other disorders of the CNS is even more conjectural. Among them are the following: amyotrophic lateral sclerosis which affects the limb muscles, Parkinsonian dementia which shows similarities in its pathological changes to Creutzfeldt-Jacob disease, and Parkinson's disease or paralysis agitans.

Research Difficulties

The problems encountered in the research of slow viruses have been formidable, and considerable gaps remain in our knowledge of them. Aside from the epidemiological evidence in the acquisition of kuru and of Creutzfeldt-Jacob disease after infected organ transplants, little is known about how transmission takes place. An incubation period of long and uncertain duration makes this a difficult and expensive subject to study. Animal models pose problems because the life span of the animals must exceed the incubation period.

Efforts to induce slow virus growth in vitro have in most cases produced questionable results as have attempts to isolate these agents for electron microscopic studies. It is evident that research in this area demands a great deal of patience and an infinite tolerance for frustration.

While these diseases are relatively rare, they contribute greatly to overall morbidity as a result of their extended duration. Their effects become evident in terms of utilization of nursing and hospital facilities not to speak of the emotional impact on the individual and his family. Therefore, while slow virus research poses innumerable difficulties, the rewards of success may be enormous.

More detailed information may be found in the following publications: Of particular interest is D.H. Adams' and T.M. Bell's book Slow Viruses[1] and C.J. Gibbs' and D.C. Gajdusek's description of viral encephalopathies.[2] Another volume, edited by J. Hotchin,[3] describes both the progress and the many inhibiting factors in the field of slow virus research.

REFERENCES

1. Adams DH and Bell TM: Slow Viruses; Addison-Wesley Publishing Co., Reading, Mass., 1976
2. Gibbs CJ and Gajdusek DC: Transmission and characterization of the agents of spongiform virus encephalopathies: in: Immunological disorders of the nervous system. 383-410, Williams and Wilkins, Baltimore, 1971
3. Hotchin J (ed) Slow Virus diseases: progress in medical virology, Vol. 18, S Karger, Basel, 1974

Medical future foresees control of many diseases

American medicine has come a long way since the colonies declared their independence in 1776. The simple horse-and-buggy medicine has given way to sophisticated medical care that often can prevent or cure diseases that baffled the physician.

The painting of the kindly family physician at the bedside of the sick child is an American classic. Unfortunately that kindly physician often could do little except hold the child's hand and watch him die. With the knowledge and drugs and tools at the command of today's physician, the sick child often gets well.

Unique contributions of America to medicine have included anesthesia to control pain. American physicians led the way in the conquest of yellow fever, and American research solved the perplexing problem of pellagra, a nutritional disease that was the scourge of much of the nation in the past. American physicians utilized a European research finding to prevent diphtheria, the great killer of children. Penicillin, discovered in England, was first produced in usable quantities through the studies of a laboratory in Illinois. Cortisone to relieve the pains of arthritis was the work of American physicians. Polio is now just a word, due to efforts of American researchers. Streptomycin and other drugs have greatly reduced the ravages of tuberculosis.

What of the future? There's no doubt about it—progress will continue.

Writing in a publication of the AMA several years ago, Alton Ochsner, M.D., famed New Orleans surgeon and teacher, made some predictions.

Among other goals, we will in the next half century, said Dr. Ochsner . . .

* Control all forms of cancer.
* Routinely transplant lungs, livers, and other body organs.
* Effectively mobilize the body's own resources to fight most infectious diseases.
* Take preventive measures to save millions of future victims of cardiovascular disease.
* Diagnose genetic and congenital disorders in the fetus and correct them before the baby is born.
* Extend many thousands of useful lives with artificial hearts and other long-lasting prosthetic devices.
* Reduce mental illness with fewer drugs and psychotherapy.

"All these major advances in medicine and surgery are predictable, I believe, because the basic work from which they are likely to spring already has been done. I am confident that there will be many other great achievements, too, but like Sir Alexander Fleming's discovery of penicillin, no one can accurately forecast what they will be or when they will occur," Dr. Ochsner said.

Ectopic ACTH-MSH Production

Case Report and Review of the Literature

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AND KENNETH L. SACKS, M.D.

Malignant cells are frequently biologically active producing compounds which fall into several categories: hormones, antigens, enzymes, and others constituting "marker substances" utilized by the clinician and investigator in the evaluation of diagnosis, treatment, and prognosis of a particular neoplasm. One such marker, hormone production by non-endocrine tumor tissue, specifically an oat cell tumor of the lung with Adrenocorticotrophic Hormone and Melanocyte Stimulating Hormone production is described in this communication.

Case History

J.M. a 43-year-old white female entered the hospital complaining of cough, weight loss, and chest pain. There was a 20-year history of cigarette smoking. A large tumor mass was found on the plain chest film. Biopsy of a right supraclavicular node revealed "large cell epidermoid carcinoma." She subsequently received radiation therapy; partial response was obtained with a dose of 4500 rads. Three months later she developed acute weakness of the lower extremities and severe low back pain. Physical examination on admission revealed a cachectic and acutely ill patient with a striking generalized hyperpigmentation of her skin (see Figure 1) with clinical signs of spinal cord compression. An emergency myelogram was performed demonstrating an extradural obstruction at D-11. She underwent a successful decompression and laminectomy procedure.

Laboratory findings were as follows: hemoglobin, 13.5gm/100 ml; hematocrit, 41%; WBC, 6,500/cu mm; platelets, 166,000/cu mm; urea, nitrogen, 10 mg/di; potassium, 2.2 and 2.3 mEq/L; lactic dehydrogenase (LDH), greater than 400 IU/L (normal 50-150 IU/L); calcium, 11.3 and 13.2 mg/dl (normal 9-11 mg/dl); cortisol at 8:00 a.m., 34 mcg/dl, and at 4:00 p.m., 36mcg/dl; 17-hydroxycorticosteroids, 27.2 mg per 24 hours (normal 5-19 mg/24 hrs); 17-ketosteroids 87. 1 mg per 24 hours (normal 6-15 mg/24 hrs); adrenocorticotrophic hormone (ACTH), 257 pg/ml (normal up to 80pg/ml); melanocyte stimulating hormone (MSH), 221 pg/ml (normal 10-40 pg/ml); vanylmandelic acid (VMA) and 5-hydroxyindol-acetic acid (5-HIAA) were within normal limits. Dexamethasone suppression test was carried out with 2 mg p.o. every 6 hours. ACTH levels remained elevated at 221 and 450 pg/ml. There was no suppression of urinary or plasma corticoids. Liver-spleen scan was normal; bone scan was consistent with widespread metastasic disease. The histology of the tumor was reviewed proving to be an oat cell carcinoma. The patient received chemotherapy with doxorubicin, cyclophosphamide, and vincristine along with allopurinol. Within five days there was a dramatic improvement of her general condition, partial regression of tumor by chest X-ray and normalisation of the calcium and potassium levels. On the seventh day of post initiation of chemotherapy the patient suddenly died. An autopsy was not performed.

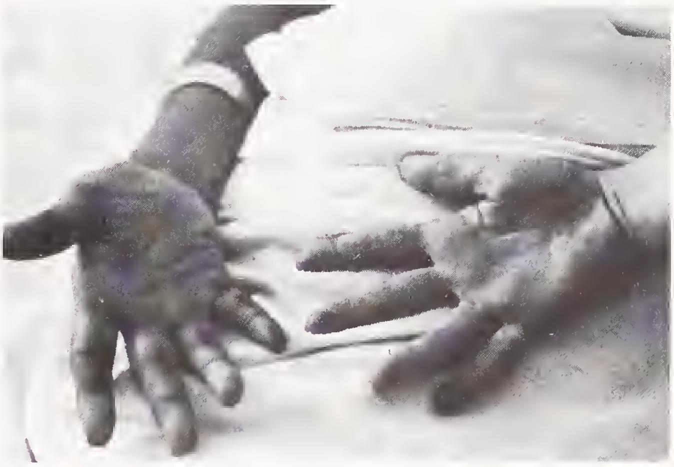

Figure 1
Hyperpigmentation of skin (left) secondary to Ectopic ACTH-MSH production. Daughter's hand is shown for comparison.

Discussion

The association between a non-endocrine tumor and hyperadrenocorticism was originally reported by Brown in a Lancet issue of 1928[1] when he described "Diabetes in a bearded woman." This was a case of an oat cell carcinoma of the lung with hirsutism, pigmentation, hyperglycemia, and erythremia. Interestingly, this report antedated the first description of

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Cushing's syndrome. The significance of such an association has become apparent within the past forty years. It is only since 1962 that ACTH-like activity has been demonstrated in tumorous tissue.[2]

Azzopardi et al. critically analyzed numerous tumor types related to Cushing's syndrome, classifying them into four main categories: 1) oat cell carcinoma of the bronchus, 2) endocrine tumors of foregut origin, 3) pheochromocytoma and related tumors, 4) certain ovarian tumors. Although the true incidence of the ectopic syndrome is unknown, approximately 18% of patients with the above tumor types develop adrenocorticism during their disease or at time of relapse. The most frequent tumors associated with Cushing's syndrome are oat cell carcinoma (60% of reported cases), thymic tumors (15%), pancreatic cancer (usually beta islet cell carcinomas 10%), bronchial adenomas (usually carcinoid—4%), and miscellaneous including pheochromocytoma, ovarian, medullary carcinoma of thyroid, parotid, prostate, and kidney (11%). Rarely, associations have been described with tumors of the breast, esophagus, colon, gall-bladder, testes, and uterus. These observations were particularly important to our patient in that they led to a review of the original biopsy material. The morphologic diagnosis was reassessed, labelling the tumor as an oat cell carcinoma, enabling a program of chemotherapy to be instituted albeit at a terminal phase of her illness. From the biochemical point of view, our patient manifests the classical features of ectopic ACTH syndrome (see Table 1).[1]

In addition, the extremely high level of MSH strongly suggests ectopic production of this hormone rather than intrinsic MSH activity attributable to ACTH.

It is now known that the ectopic hormone is not identical with the authentic peptide. An explanation for the apparent abnormality rests on Berson and Yalow's discovery that all hormonal peptides for which they have developed radioimmunoassay (RIA) circulate in at least two forms.[4] Gewirtz and Yalow[5] later confirmed this and remarked on the ubiquitous presence of immunoreactive ACTH in both the primary and metastasic tumors. Tumorous tissue contains "big ACTH", a precursor of "little ACTH" which is present in normal pituitary gland. Big ACTH, usually found in normal circulation, has a biologic activity less than 4% of its immunologic potency; thus, one would have to increase big ACTH concentration 25 times so as to have the same biologic activity as little ACTH. Therefore, big ACTH must reach a concentration greater than 1 ng/ml for the patient to exhibit cushingnoid features. It has also become apparent that it is through the converting activity of trypsin that big ACTH becomes biologically active little ACTH.[6]

What makes certain cancers secrete these peptides is unknown. It has generally been accepted that ACTH secretion from the normal pituitary gland is regulated by hypothalamic corticotropin-releasing factor (CRF) while that of ectopic ACTH has been considered but not proven to be autonomous and unresponsive to exogenous stimuli. From the work done by Hirata et al.[7] it is now apparent that cyclicAMP plays a role not only in stimulating

Table 1

ETIOLOGIC DIAGNOSIS OF CUSHING'S SYNDROME

	Autonomous Adrenal Tumor	*Pituitary ACTH Excess*	*Ectopic ACTH*	*Patient J.M.*
Cushingnoid appearance	P	SP	UA	A
Hyperpigmentation	A	UA	UP	P
Hypokalemic Alkalosis	P	A	SP	SP
Hyperglycemia	UP	UP	UP	P
Increased Plasma Cortisol	UP	UP	SP	P
Normal Diurnal Variation	A	UA	A	A
Increased Urinary 17OHs	P	P	SP	P
Increased Urinary 17Ks	SP	P	SP	P
Hyperresponse ACTH	A	SP	UP	ND
Dexamethasone suppression (0.5 mg q' 6 h)	A	A	A	ND
Dexamethasone suppression (2.0 mg q' 6 h)	A	UP	A	A
Increased Plasma ACTH	A	UA	SP	SP

P= present, A= absent, U= usual, S= strongly, ND= not done normal CRF but probably in a very similar way does stimulate the release of ACTH and beta-MSH by the tumorous tissue. But other factors are undoubtedly involved. With the increased availability of radioimmunoassay, a clearly discernible pattern of production appears to be emerging. Pearse[8] of the Royal Postgraduate Medical School in London postulates a common embryonic origin for these tumors. This constitutes the APUD cell line theory (A= amine, P= precursor, U= uptake, D= decarboxylase for the enzyme step required to form an amine from its precursor amino acid). Neoplasms of these cells can secrete low molecular weight peptides with hormonal activity (e.g. parafollicular thyroid cells: calcitonin, gamma pancreatic cells: gastrin, etc). There is also evidence that one APUD tumor may manifest several secretory activities. There is clinical relevance to the humoral activity of tumors. These tumor products not only provide diagnostic information as to the nature of the tumor but may tell whether tumor growth is unhurried or rapid. Hence they serve as marker substances which may indicate the quantity of tumor mass present and reflect the impact of anti-tumor therapy on the total malignant cell line.

REFERENCES

1. Amatruda Thomas T Jr: Non-Endocrine Secreting Tumors in Duncan's Diseases of Metabolism, 7th Edition: 1629, 1974
2. Meador CK, Liddle GW, Island DP, Nicholson WE, Lucas CP, Nuckton JG, and Luetscher JA: Cause of Cushing's Syndrome in Patients with Tumors Arising from Nonendocrine Tissue. J Clin Endocrinol Metab 22: 693-703, 1962
3. Azzopardi JG and Williams ED: Pathology of Nonendocrine Tumors Associated with Cushing's Syndrome. Cancer 22: 274-286, 1968
4. Gordan GS: Humors from Tumors. Diagnostic Potential of Peptides. Ann Inter Med Editorial, 76: 501-502, 1972
5. Gewirtz G, Yalow RS: Ectopic ACTH Production in Carcinoma of the Lung. J Clin Invest 53: 1022-1032, 1974
6. Gewirtz G, Schneider B, Krieger D, Yalow RS: Big ACTH. Conversion to Biologically Active ACTH by Trypsin. J Clin Endocrinol Metab 38: 227-230, 1974
7. Hirata Y, Yamamoto H, Matsukura S, Imura H: In vitro Release and Biosynthesis of Tumor ACTH in Ectopic ACTH Producing Tumors. J Clin Endocrinol Metab 41: 106-113, 1975
8. Baylin SB: Ectopic Production of Hormones and Other Proteins by Tumors. Hospital Practice. October 1975

Impotence—A Case Report

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Impotence is a repetitive inability to obtain or maintain an erection of sufficient turgidity for intercourse. A man may have trouble getting an erection, or it decreases before or shortly after penetration. In all instances of impotence, the erection decreases prior to ejaculation.

Erection difficulties are caused by either organic factors, psychologic factors, or a combination of both. Approximately 10% to 15% of males are impotent on an organic basis.[1] An organic etiology of impotence can be ruled out by a thorough sexual history, physical examination and appropriate laboratory studies. Impotence due to psychological factors occurs in approximately 85% to 90% of cases.[2] In the majority, the male is able to get erections at other times, but loses his erection when intercourse is attempted. The vast majority of males who are impotent on a psychogenic basis have functioned quite well sexually for a number of years before experiencing erectile difficulties. In a large number of males with psychogenic impotence, a past history of premature ejaculation exists.[3]

Case History

Bill and Ann, ages 43 and 39, married for 20 years, were referred to the Hartford Hospital Sex Counselling Center. For the past several years, when Bill and Ann were involved in foreplay, any attempt towards intercourse would result in a decrease in Bill's erection, making penetration impossible. Bill was able to obtain and maintain a firm erection upon waking up in the morning and with masturbation.

The sexual history of the couple revealed the following: Bill usually initiated sexual contact with Ann, and intercourse would occur approximately once a week. During foreplay, Bill would

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easily obtain an erection and would try to arouse Ann by kissing and touching her breasts and vagina. Ann rarely touched Bill's penis directly because he, and she, feared that he would become too aroused and ejaculate prior to penetration. When Bill felt he was no longer able to withhold ejaculation, he would insert his penis, and within a short time, ejaculate. Ann was rarely orgasmic during intercourse, occasionally orgasmic from manual genital stimulation, and had no past history of self stimulation.

Since the onset of impotence, sexual frequency had decreased, and intermittent failure-anger-withdrawal cycles had been occurring. The couple's long term commitment to each other and the marriage had remained although each expressed some fear that their sexual "problem" was putting severe stress on their marriage. They both wanted relief from the problem. Bill was not depressed, nor under any job-related stress, and in general, was in good health.

Discussion

There were several factors in Bill's history which combined to precipitate his first experiences of erection-loss prior to penetration. When Bill initiated a sexual encounter with Ann, he took responsibility for his own arousal and for hers. Bill also had a chronic inability to postpone ejaculation once penetration occurred. For years Bill felt that he was sexually inadequate because he could not bring orgasmic pleasure during intercourse to Ann. He tried to hold off his ejaculation by distracting himself to decrease his sensory input. His concern about what was going to occur during intercourse began to disrupt his ability to maintain an erection, first during intercourse, then for penetration, and finally during foreplay. It is known that negative emotional arousal, particularly fear and anxiety about sexual performance, can block arousal and decrease erections.[1] Repetitive attempts at penetration which were curtailed by erection loss reinforced Bill's longstanding fear of inadequacy—ejaculating too quickly, with a second inadequacy fear—erectile difficulty.

Ann's sexual attitudes and her response pattern unfortunately reinforced Bill's self-appropriated feelings of sexual inadequacy. She was reticent to initiate sexual encounters, desired and subjectively valued an orgasm during intercourse, and agreed with Bill that his inability to postpone ejaculation was responsible for her lack of orgasmic release. She thought that since Bill easily experienced orgasm during intercourse, she should be able to also. She verbalized little subjective satisfaction from noncoital orgasmic release, and was embarrassed about guiding Bill toward her clitoris to intensify manual stimulation. In most encounters, she was not sufficiently stimulated prior to penetration, but, again, was embarrassed to communicate this to Bill.

Treatment

Therapy for secondary impotence requires some relearning and reorienting for both male and female partners. Primary goals are to identify the factors that are contributing to erection difficulties, help the male decrease his fear and anxiety, and enlist the support of the female. The treatment plan does not teach a male how to get erections; it modifies factors which are blocking the maintenance of erection ability.

In this case Bill was assured that his impotence was psychological because he lost his erections only when he tried to have intercourse. The first step of counseling was to eliminate attempts toward intercourse and educate Bill and Ann how to sexually relate by body-pleasing experiences and directed genital touching.[4] These experiences included hugging, kissing, and general body caressing. They permitted, particularly Bill, to relearn the enjoyment of sensual pleasure without the worry of whether or not he would be able to achieve an erection. Both Ann and Bill needed to gain confidence and be educated as to how they wanted their genitals fondled. Ann needed to reorient her sexual thinking to accept orgasmic release from manual stimulation. Bill, in turn, needed to allow himself to accept manual stimulation from Ann, so he could be relieved of his feeling that he must be totally responsible for maintaining his erections. Ann was taught how to use the squeeze technique[3] during the time she was fondling Bill's penis. After Bill had an erection she was directed to squeeze his penis just below the glans with sufficient force that approximately 1/3 of his erection would decrease and the feeling that he wanted to ejaculate would subside. The pressure of the squeeze does not hurt the erect penis. It was recommended that this technique be employed several times per week for a minimum of six months.

After Ann and Bill reoriented their attitudes and behaviors towards sexual interaction, intercourse was resumed according to the following treatment plan. Ann was to come over on top of Bill, insert his penis, and move in a way that did not put a demand on Bill. The squeeze technique was adapted to vaginal containment, and Ann learned how to move on and off Bill's penis to prolong intercourse.

Both Bill and Ann were responsive to the attitudinal and behavioral changes necessary for successful resolution of the sexual problem. Bill regained confidence regarding his ability to maintain erections for penetration and during intercourse. Long-term use of the squeeze technique and an increase in sexual frequency combined to prolong Bill's ability to hold off before ejaculating. The sexual interactions for Bill and Ann changed from performance to pleasure.

REFERENCES

1. Kaplan HS: The New Sex Therapy. New York, N.Y., Brunner Mazel, 1974
2. Masters WH and Johnson VE: Human Sexual Inadequacy. Boston, Mass., Little Brown & Co., 1970
3. Wabrek AJ and Wabrek CJ: Premature Ejaculation. Conn Med 41: April 1977
4. Kaplan HS: Illustrated Manual of Sex Therapy. New York, N.Y. Quadrangle/The N.Y. Times Book Co., 1975

Computerized Tomography—The First Line of Investigation in Cranial Trauma

Computerized Tomographic Case of the Month

JANE W. BARRY, M.D. AND STEPHEN L.G. ROTHMAN, M.D.

Introduction

The practice of Neuroradiology has undergone dramatic changes over the last two years, the most remarkable being in the realm of cranial trauma. Prior to the advent of computerized tomography no week would elapse without several emergency arteriograms being performed in the Section of Neuroradiology at Yale. Emergency cerebral arteriography for trauma is now a rarity. Patients with acute or chronic histories of head trauma are now diagnosed with CT and sent directly to the operating room with no invasive procedures being performed. In the last six months there has not been a single case of a false negative report in a patient with a significant cranial hematoma.

Case Report

A sixty-four-year-old, right-handed male was admitted with a history of confusion and lethargy following a fall at home ten days prior to admission. He had a long history of alcohol abuse.

The physical examination revealed him to be obtunded but arousable with bruises over the right eye and left parietal area. There was no hemotympanum. When aroused he was oriented and able to name the current president, but was unable to perform mathematical calculations. He had a left central facial nerve deficit and the left shoulder shrug was poor. His reflexes were symmetrical but motor examination revealed a left hemiparesis.

There was a questionable history of a previous right middle cerebral artery CVA with residual left-sided weakness and occasional incontinence but he had been functioning normally at home prior to admission. The dense hemiparesis was felt to be recent.

A skull series was negative and a radionuclide brain scan was equivocal.

CT scan (Figure 1) revealed a right to left midline shift. There was a crescent-shaped area of high attenuation just below the inner table of the skull on the right. This was felt to be typical of an acute subdural hematoma. Below this was a crescent-shaped area of low attenuation, lower than that of the brain substance. This was typical of the pattern seen with a chronic subdural hematoma. The left lateral ventricle was enlarged and the right lateral ventricle was compressed by the mass effect of the subdural hematoma.

Surgery was performed. On opening the dura, a large collection of black clots was evacuated. This was felt to be consistent with a hemorrhage less than ten days old. Below this, under a thin membrane was a collection of liquefied brown hematoma, felt to represent an older resolving hematoma surrounded by an organized membrane. Below this was normal brain.

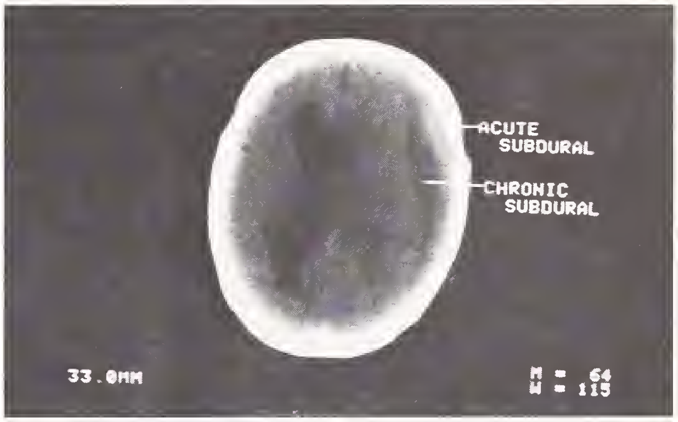

Figure 1

The hematomas were evacuated and the patient recovered.

Discussion

On CT scan, acute intracranial hemorrhage demonstrates attenuation higher than brain substance. A hemorrhagic clot resolves, the attenuation of the fluid collection goes through various stages. It first becomes isodense with brain and then demonstrates lower attenuation than brain substance. Hemorrhage resolves at varying rates depending on its location. Recent studies[1] indicate that a subdural hemorrhage will demonstrate high attenuation for zero to seven days. Between seven and twenty-two days it is isodense and after twenty-two days it becomes less dense than brain. An isodense subdural is often detectable by enhancement of a surrounding membrane following intravenous contrast injection.

It is conceivable that a patient with a chronic subdural who then sustains a repeat hemorrhage would not demonstrate an area of high attenuation if the new blood mixed with the low density resolving hematoma to form an isodense material. In this patient a membrane was present separating the acute from the chronic hematoma. Contrast was not given to this patient and therefore the membrane is not seen on the CT scan.

REFERENCES

1. Scotti G, et al: Journal of Neurosurgery 47:311-315, 1977

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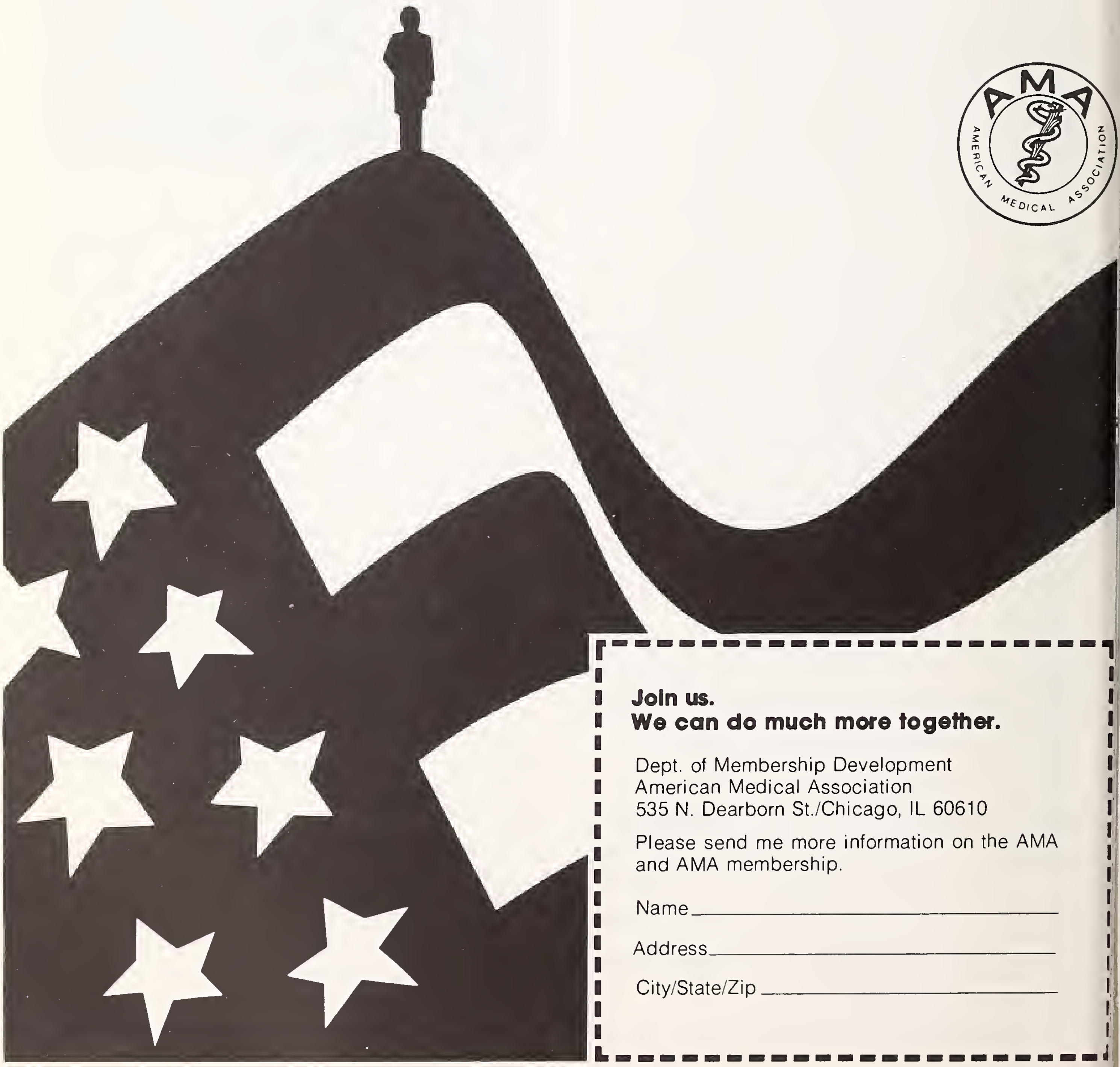

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Windham Community Memorial Hospital and the Community it Serves: A Private Corporation and the Public Interest

ELLEN JODAITIS, PH.D.

Introduction

It is the time and efforts of many dedicated individuals which provides the leadership and services which enable Windham Community Memorial Hospital to function effectively. The rest of us are glad that it is there whenever we need its services, but most often we take it for granted.

This past year, however, events have taken place that have made us much more aware of the decisions made at the hospital and the stake we have in how these decisions are made. A nurses' strike and the decision to eliminate services in the wake of the Commission on Hospitals and Health Care ruling in 1976 involved the people of this region in a new look at the hospital and a recognition that its services cannot be taken for granted. Our ability to obtain the services we believe are important is dependent on who makes these choices and how they are made; the ability of those who lead has become much more dependent on community knowledge and support.

The nurses' strike raised a number of issues that were publicly debated. The strike and many of the issues it raised are not yet resolved. Employees of the hospital, which is a voluntary, charitable, legally private institution, asked the people of the community to support their action and their goals, and the hospital asked the people of the community to support their response to the nurses' demands.

A few months later, Windham Community Memorial Hospital (WCMH) asked the people of this area to support their fight to have budget requests denied by the Commission on Hospitals and Health Care (CHHC) restored. The community was asked to support decisions and priorities established by the hospital governing board by writing letters of protest, marching at the State Capitol, and attending a public hearing. A private institution which maintains the right to set its own priorities and make its own decisions turned to the public for assistance in fighting a state regulatory body.

This report was undertaken in order to gain an understanding of the relation between this private organization and the community it serves; the hospital includes Windham as part of its name, and turns to it for support when its ability to make private decisions is threatened. WCMH is a private corporation, but one that embodies a public trust. The relation is one that must be worked at—it cannot be assumed. It is not the intent of this report to address the particular issues raised during the nurses' strike, or the legal issues raised by the court suit challenging CHHC decisions, or the legislative issues raised by several proposed bills—although the public support requested was certainly intended to have an influence on some of these areas. However, these matters and others which will be discussed do reflect the priorities the hospital has set; where and how an institution chooses to commit its resources reflects the areas that it believes to be most important. Resources are always limited and frequently scarce. This is true for all health care and human service agencies. Whether the priorities which have been established by WCMH are "correct" or not, or reflect what this community might want cannot be decided by a report such as this one. What is important is that the support of certain

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ELLEN JODAITIS, Ph.D., Staff member of the Windham Regional Community Council, Willimantic, CT.

This article is an abridged version of a report undertaken by the Windham Regional Community Council (WRCC) this spring. Since it was issued and widely distributed, members of the WRCC board and staff have met with Windham Community Memorial Hospital trustees and administrators to begin discussion of the recommendations. One recommendation made in the original—to adopt a Patient Bill of Rights—has already been implemented. Others are still being discussed.

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programs and the rejection or elimination of others are the result of priorities established by a limited number of people who have not consulted with those who are afterwards asked to support these decisions. A cooperative relationship between the governing body of the hospital and the community will serve to inform the people of the region and will strengthen the governing body, and provide a continuing base of support for the decisions it will have to make in the future. The relation between a community hospital and the people it serves can only be resolved in a continuing discussion here in the Windham Region. Hopefully, this report can begin that discussion.

Governance—Windham Community Memorial Hospital

WCMH was incorporated in 1933, taking over from St. Joseph's as the only hospital in the region. It is a private corporation whose by-laws established the geographic region which it serves as the entity from which its governing board would be drawn.* WCMH did not have any large benefactors to endow the hospital and provide it with a continuing income; financially this has been an obvious disadvantage for Windham. Its income from sources other than patient revenues and grants has been limited compared to other hospitals.

Membership in the corporation of the WCMH consists of 150 corporators. A corporator is an "adult resident of the area served by the hospital";** these individuals make up the legal structure of the hospital. This group meets once a year to elect one-third (50) of its membership, and from its total membership, one-third (7) of the elected Trustees. The nominating Committee which is composed of "five Corporators of which three [are] members of the Board of Trustees" are also elected by the corporators. This Committee selects the names that will be proposed as corporators and trustees. "The property, affairs, and business of the corporation" are managed by a 23 member Board of Trustees which meets monthly. Twenty-one members are elected for staggered terms; the President of the Women's Auxiliary and the Chief of the Medical Staff serve by virtue of their office. The Board of Trustees elects its own officers; these officers and three additional trustees serve on the Executive Committee of the Board of Trustees.

The Medical Staff is also organized according to a set of by-laws and regulations. The Medical Staff elects three officers; these individuals and three Medical Department heads form the Executive Committee of the Medical Staff. These two executive committees (the Board of Trustees and the Medical Staff) form the Joint Conference Committee which meets at the discretion of the Chairman of the Board of Trustees, at least quarterly, and serves as the liaison between the staff and the Board.

Although the Corporators form the legal base of the corporation known as the WCMH, it is the Board of Trustees in consultation with the Executive Committee of the Medical Staff which hires and/or fires the administrator and professional staff, sets the hospital's priorities, and makes policy decisions.

It is the fact that the Corporators and Trustees are drawn from the geographic region served that in the most narrow sense formally establishes Windham as a community hospital. There is embodied in the idea of a community hospital, however, a much broader mandate of public trust, one which has been clarified by the events of the past several months: there must be an opportunity for communication between the people served and the governing board, an opportunity to know not only what the final decisions are, but also the alternatives considered and the priorities which have been established to govern the decision-making process.

Board of Trustee meetings are closed meetings and there is no provision made for any public time at these meetings. Community input is assumed to have its impact through the informal contacts of individual trustees. The hospital's own corporators who are not trustees are one major resource for liaison, information-sharing, and community involvement in decision-making, but are rarely consulted in this process. No regular means to inform corporators of issues or to elicit their input is established.

One individual, a corporator for over 20 years, commented that he had "never been consulted on policy [and that he has] often wondered how the hospital depends on getting community response." Another corporator, newly elected this January, was not even notified of his election and had to contact the hospital to find out what his role might be. Another corporator has commented that he would like an opportunity to ask questions and engage in a dialogue with responsible officials. Hospital officials state that a more active role for corporators is envisioned, and they have begun a program to meet with corporators who were newly elected. This new role will require a concerted effort. To rely on aggressive individuals to make their presence felt is not adequate. If corporators are to serve as a community resource their opinions will have to be sought, not merely their attendance from time to time.

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*This area includes the Towns of Windham, Andover, Ashford, Canterbury, Chaplin, Colchester, Columbia, Coventry, Eastford, Franklin, Hampton, Hebron, Lebanon, Mansfield, Scotland, Sprague, and Willington.

**Quotes are from By-Laws of The Windham Community Memorial Hospital.

Windham Community Memorial Hospital—Its Role in the Community

WCMH is the largest provider of health services in the Windham Region. With a budget of approximately 10 million dollars, a staff of over 600 full and part-time employees, and approximately 6,000 patients admitted and almost 90,000 outpatient visits a year,* it serves more people than any other program or agency. It is the dominant human services institution in the community and as such its role is an important one.

What this role will be is a question of the priorities the hospital establishes—how they are set and who is consulted. The governing body described above are the people who have, to date, been involved in this process. No broader community participation has been sought, nor has any regular provision for it to be considered been established. This fact is of concern at any time for a community hospital, but most particularly at a time when the hospital is asking the community to defend its decisions and perhaps more directly to contribute to its financial support.

One point of view on the hospital's role, expressed by the Chairman of the Board of Trustees, is that the hospital should assume the leadership role in regional health care delivery. Since WCMH is the only institution which can provide general inpatient care, it is natural that this area has a high priority for the governing board of the hospital. As a general inpatient facility, the hospital is also part of a larger system which includes other hospitals and community agencies. Regional health care services in this broader view must also be considered in the setting of priorities for patient care (both inpatient and outpatient).

Although the hospital has always stressed inpatient care, it has expanded outpatient services in the past several years. (See Appendix A) Services which involve complicated procedures or expensive technology (laboratory services and X-ray for example) and third-party reimbursement have grown significantly. The Emergency Room, in addition to its treatment of emergencies, has increasingly functioned as primary care facility; many people who did not have a physician or could not reach their physicians have used the Emergency Room for non-emergency care.**

In recent years the hospital has broadened the definition of its role as a community hospital to serve as a catalyst in the recruitment of new primary care physicians to the area. A staff member was hired by the hospital whose job included the coordination of this effort and preparation of a grant application which was intended to encourage group practices.

Other health efforts (to use the hospital as a focal point for regional health care delivery) have met with less success. Although the hospital has provided a small building on its grounds to house several clinics run by non-hospital employees, other hospital-based outreach/outpatient programs have been unable to establish or maintain a base at WCMH.

Given the limited number of people who establish the priorities and influence the decisions at WCMH, it is possible that others representing a broader community perspective might have argued for or decided in favor of other priorities. Some examples of programs that might have had a role in the hospital's plans had there been broader community participation as the decisions were made would have to include: the Mental Health Clinic and Meals on Wheels programs eliminated following the CHHC decision; and prior to that decision, a Maternal and Child Health Clinic and a Women's, Infants', and Children's (WIC) program.

Three of these programs have been established outside the hospital with the cooperation and contribution of other community agencies. These agencies have established priorities which have a commitment to outreach and to serving those unable to pay regular fees, and a willingness to weather the vagaries of state or federal grant programs to provide needed services.

Another area in which the hospital would naturally serve as a focal point for regional health care delivery and in which broader community representation might have resulted in different decisions is in the coordination the hospital provides for its inpatients with area health agencies upon discharge. One person is charged with the responsibility of this coordination. There is no social service department at WCMH nor commitment to staff more fully the area of discharge planning.

Other areas in which even inpatient services are lacking are the implementation of a Blue Cross program to cover home care and the regular availability of translators for people unable to speak English.

When decision-making is a closed process, involving only a few people in a community, the biases of those involved inevitably prevail. To give others an opportunity to influence the decision-making process is an important first step in making a community hospital responsive to the community it serves. This would be a first step in making the governing board as truly representative as possible.

***Community Health Care Study*, Windham Regional Community Council and University of Connecticut Health Center, January, 1975.

**Appendix A includes a summary of some Annual Services and Operating Income.

A Broader View

The matters raised for discussion above are not unique to Windham Hospital. They are issues that have arisen at other hospitals, in the state and nationally as well. Hospitals across the country have had to consider and respond to similar requests for assistance in supporting outpatient/outreach programs or in implementing procedures that would assist people in the community when they are hospitalized. Their responses, as Windham's, have been based on the issues which are given priority. As the issue of rising costs is a national one, so too is the issue of community participation and cooperation, especially at a community hospital.

Other pressures also exert a strong influence at WCMH as at other hospitals: the dominant role of insurance companies and their reimbursement methods; the prestige of specialists and complex procedures; and the emergence of state and federal agencies with an interest in hospital budgets and the level and type of care provided.

The Chairman of the Nominating Committee of the Corporators, speaking at its Annual Meeting in late 1976, stated that the Board of Trustees, in order to remain responsible to the community it serves, must now allow its authority to be diluted by third parties. The community of the Windham Region is not another third party; rather it is the "second party"—those who receive services or might receive services—and they can be strong partner with the "first party," those who provide services. If members of the community are educated to the complexities of hospital operations and to the vital interests they have in the decisions that are made, this will not only benefit the broader community, it will also strengthen the hospital's position as it attempts to withstand the threats of third party interference.

The last time that a long range view of the hospital's priorities was taken was over fifteen years ago. A Master Plan adopted at that time set the direction for the expansion of the 1960's. Given the many changes that have occurred since the Plan was adopted and the need for some document to guide the hospital's response to a continually changing environment, the development of a new Master Plan would not only provide direction but would also provide an excellent opportunity to involve a wide spectrum of opinion in considering what direction the hospital should take for the next several years. Another plan is in the earliest stages of formulation and is being discussed by the hospital directors and administrators. Maximum opportunity for public discussion of possible alternatives and priorities would not only inform the public, but also those finally responsible for making the decisions. The type of hospital WCMH should be and the kinds of services important for it to provide are questions that can and should be answered here.

Fund raising in the community by the hospital has been to date a fairly limited effort. The governing board is currently considering the expansion of fund-raising activities in order to increase the revenues available and has restructured board committees in anticipation of this effort.

As the hospital moves toward a more active involvement with the people in its community, asking for funds and other support for its activities, it will become additionally responsible for involving people in decisions as to how these funds among others will be allocated and in giving people a sense of the long range direction the hospital sees for itself within the region it serves.

Conclusions and Recommendations

Windham Community Memorial Hospital has reached a point historically where fundamental decisions about its future are essential. An institution which claims it is private when it makes its decisions, but public and community-based when it raises funds and asks for other support cannot long expect to have it both ways. A community which does not understand the pressures and problems involved in running a hospital will not realize until it is perhaps too late what the public has at stake. There are many implications to the State of Connecticut's attempt to limit costs by the CHHC and (at the national level) the recent Carter initiatives to establish cost containment mechanisms. Concerns about duplication of services and the costs of technology will have ramifications for WCMH. The community needs to be fully informed of these ramifications and of the options that might be available.

Some questions which we must begin to consider might include the following:

> What role should a community hospital play in a state-wide health system?
>
> What kinds of services are important to have near at hand and what others might we be willing to travel some limited or greater distance to receive?
>
> At what point do basic community needs and the status and prestige of the hospital come into conflict?
>
> If we are not going to be able to do everything for everybody at one hospital, what do we want to do for some people?
>
> Is the hospital the best place for a regional leadership role in health care delivery? If so, how does it propose to carry out this role; if not, how will it assist other groups or agencies to assume that role?
>
> What services should be hospital-based? Is primary care best located there or elsewhere in the community?

Questions of this type must be addressed by more than the 23 member Board of Trustees and by the medical staff with which it consults. To begin to address the issues raised in this report several suggestions are presented below. These suggestions represent some means by which the contradictory private/public situation can begin to be resolved and a solid base established by a community hospital in the community it serves:

1. Adopt a Master Plan developed with maximum community input.
2. Open Board of Trustee meetings to the public; at least provide a public time when individuals or groups can address the Board regarding concerns.
3. Establish means to inform the community of choices the hospital perceives and the alternatives it considers, the decisions and priorities it adopts.
4. Involve Corporators more actively as a source of information and liaison between the hospital and the community.

If regular means are established to maintain a flow of information and communication, then it will not take crisis situations such as we have experienced in the past several months to make people aware that changes are occurring. To do so is not an easy process and will require a commitment and a concerted effort on the part of those responsible for governance of the hospital to bring about changes that will benefit them as much as the community they serve. Such a commitment can forge a strong relationship—an informed public which is ready to support the decisions reached.

APPENDIX A

ANNUAL ACTIVITIES - WINDHAM COMMUNITY MEMORIAL HOSPITAL

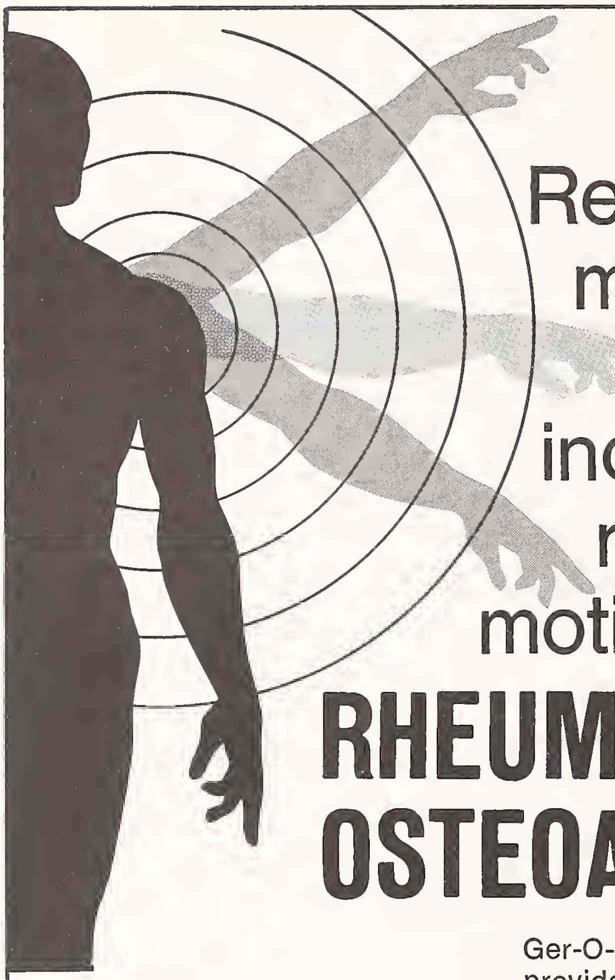
	1959	*1966*	*1971-2*	*1972-3*	*1973-4*	*1974-5*	*1975-6*
Patients Admitted	5,496	7,801	6,367	6,592	6,698	6,307	5,994
Days of Care to Patients		48,434	44,016	42,554	42,335	39,244	36,945
Average Length of Adult Medical/Surgical Stay			8.7	8.1	7.7	7.5	6.7
Patients Treated in Emergency Room	4,950	9,669	19,071	23,800	23,533	22,493	22,611
Average Number of Patients per Day	95		120.6	116.6	116.0	107.5	100.9
Laboratory Work Units			5,572,030	6,156,676	6,914,298	7,311,402	8,212,014
Radiology Work Units			65,012	72,822	85,019	95,514	107,776
Births	675	754	693	568	482	357	396
Outpatient Visits for Service	8,297		59,902	66,726	68,622	78,668	89,243

Source: *Annual Reports*, Windham Community Memorial Hospital, *Willimantic Chronicle*, July 29, 1960.

ANNUAL BUDGETS - WINDHAM COMMUNITY MEMORIAL HOSPITAL

Total Operating Income	*1971-2*	*1972-3*	*1973-4*	*1974-5*	*1975-6*	*1976-7*	
	$4,797,426	$5,660,428	$6,605,387	$7,799,655	$8,454,599	$10,692,206	requested

Source: *Annual Reports*, Windham Community Memorial Hospital, Budget Submission to Commission on Hospitals and Health Care.



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1. Gordon, E. E. and Haas, A., Indust. Med. & Surg. 28:217, May, 1959.

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Countersuits in Spurious Medical Malpractice Claims

GREGORY WILLIS, ESQ. AND DAVID BODINE, ESQ.

I. BACKGROUND:

The tort of malicious prosecution was known to the common law and was thought to require the allegation and proof of three distinct elements:

1. The action must have terminated in a defendant's favor.
2. The action must have been brought without probable cause.
3. The action must have been brought with malice.

As a practical matter, suits for malicious prosecution were a more effective means of redress for the wrongfully prosecuted criminal defendant than for the aggrieved civil defendant.

The action for abuse of process was founded at common law in a landmark English case in 1838.[1] In it, the plaintiff was the owner of a ship which he had mortgaged to the defendant for a loan. At a later date, the defendant, seeking further security for his loan, compelled the plaintiff, through fear of imprisonment, to give up certain chattels, including the registery of the ship without which the plaintiff could not sail. The defendant accomplished this extortion by filing an affidavit of debt, long before the payment of the debt was due, and by having issued a certain writ (capias) which required either the delivery of the further security desired by the defendant or the arrest of the plaintiff.

The traditional action for malicious prosecution was not available to the plaintiff because the previous proceeding had not been terminated. The court nevertheless sustained the plaintiff's cause of action by declaring that:

> "The termination of the suit is not alleged, nor was it necessary, because what the plaintiff complains of is an abuse of the process of law, for the purpose of extorting property to which the defendants had no claim. The abuse having been perpetrated, and the defendants having attained their end by it, it is immaterial whether their suit was terminated or not. The case is altogether distinct from cases of malicious prosecution or arrest, in which it is always the course to allege and prove that the former proceeding is at an end".[1]

The court further distinguished the newly created tort by saying:

> "This is not an action for a malicious arrest or prosecution, or for maliciously doing that which the law allows to be done: The process was enforced for an ulterior purpose: to obtain property by duress to which the defendants had no right. The action is not for maliciously putting process in force, but for maliciously abusing the process of the court".[1]

Shortly after the English decision, American courts began adopting the new tort, basically as set forth in it.[2] It is today recognized in every jurisdiction in the United States with the possible exception of Ohio, in which State is found the most severe confusion between the torts of malicious prosecution and abuse of process.

Much of the confusion surrounding the torts of abuse of process and malicious prosecution can be traced to the disparate interpretation given these causes of action in various jurisdictions. The problems some jurisdictions have had can be traced to the use of the term "abuse of process" for numerous dissimilar situations. These situations are often related only by the fact that actionable injury was incurred by one person as a result of improper use of process by another in such a way that an action for malicious prosecution would not lie.[3] The elements of the tort have thereby been confused by this widespread, comprehensive use. A further source of confusion may lie with the variety of terms courts

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have used to describe actions dealing with misuse of legal process. The more popular of these terms are "malicious abuse of process", "malicious use of process", "malicious prosecution", and "abuse of process". Furthermore, the fact situations which give rise to each tort are often closely related and the same set of facts may, at times, support both torts.[4]

In Connecticut there has been less confusion than in other jurisdictions, at least partially because there have been so few actions brought for either tort in this jurisdiction. The torts may be distinguished most readily by identifying the point at which either tort attaches. Abuse of process is the perversion of process *after its issuance,* while malicious prosecution is the *wrongful initiation* of such process. It is imperative that this distinction be kept nice in evaluating potential countersuits on behalf of wrongfully prosecuted physicians.

II. ABUSE OF PROCESS:

The Connecticut courts have taken a slightly different view of the tort of abuse of process than is held by the majority of the jurisdictions. Prosser (Torts Section 121, 4th Ed. 1971) states the majority position in holding that there are two essential elements which must be present before an action for abuse of process will lie. There must be (1) an ulterior purpose and (2) a willful or improper act in the use of process, contrary to what is proper and regular in the conduct of such a proceeding. In Connecticut, however, it has been held that an ulterior purpose is not an essential element of the tort, but that:

> "One who uses legal process against another in an improper manner or to accomplish the purpose for which it is not designed is liable to the other for the injury caused thereby".[5]

The difference in the two interpretations may be more apparent than real, however, since most of the jurisdictions which require a showing of an ulterior motive allow it to be shown by inference from the existence of the second element of the tort, e.g. the improper act.

> ". . . The first of these elements (ulterior purpose) may, perhaps, be inferred from the second (improper act), but existence of the first cannot . . . dispense with proof of the second; for, if the act of the prosecutor be itself regular, the motive, ulterior or otherwise, is immaterial".[6]

Countersuits sounding in abuse of process are perfectly suited to the circumstances narrated by Dr. Jerome I. Levine in Medical Economics, February 23, 1976, pp. 65-71. In that case the doctor's ex-patient had sued in malpractice, not for the purpose of redressing an injury done to her by the physician, but rather for the purpose of avoiding a bill which she owed to the physician. It is important to note that an analysis of the merits of the malpractice claim is, strictly speaking, irrelevant to the determination of the physician's countersuit for abuse of process. The physician need not allege that the malpractice suit was in fact groundless; he must only allege that it was instituted for the purpose of avoiding a bill, which is of course, "A purpose for which it is not designed".[5] The authorities are in agreement that a legal procedure set in motion by the plaintiff may be in proper form, with probable cause, and even lead to ultimate success, and yet may constitute an abuse of process if it is perverted to accomplish a purpose for which it was not designed and some willful act not proper in the regular conduct of the proceedings is found.

Thus the physician has a potent weapon in the countersuit for abuse of process in situations where the plaintiff is suing for the purpose of avoiding a bill, or embarrassing the physician publicly, or forcing the physician to do anything which is not required by law, or forego the doing of anything which is his right. The great advantages of the suit for abuse of process are that it may be commenced prior to the termination of the original complaint, and that the physician may prevail in spite of the fact that the plaintiff's claim is meritorious. However, the usefulness of this type of action is greatly limited by the nature of the tort; a completely false or frivolous medical malpractice suit in which the plaintiff is attempting to secure money damages will not support an action for abuse of process. In the rare case where it can be demonstrated that the action has been commenced, with or without probable cause, for the purpose of securing for the plaintiff some benefit or improper goal, other than the money damages ordinarily sought in such a suit, an action sounding in abuse of process will lie.

III. MALICIOUS PROSECUTION (VEXATIOUS SUIT):

Where a malpractice lawsuit has been filed against a physician without a legal or factual basis, a countersuit for malicious prosecution against the plaintiff and the plaintiff's attorneys may be the only legal remedy available to the aggrieved physician. If successful, the physician may recover not only expenses reasonably incurred in the original defense, but also damages for loss of business, injury to reputation, and mental suffering.[7] An action for malicious prosecution has the advantage of not being circumscribed by constitutional strictures, as is, for example, an action for defamation. Theoretically, it offers a maligned physician the best method of obtaining damages and provides a potential deterrent against the institution of spurious claims in the future.

Malicious prosecution actions have, however, been disfavored in law, particularly as countersuits to civil proceedings, and the courts have evinced a general reluctance to expand the scope of their application. Nevertheless more and more physicians are turning to this type of countersuit in an effort to strike back at the perpetrators of frivolous malpractice lawsuits.

In Connecticut the cause of action for malicious prosecution has been codified in Section 52-568 of the Connecticut General Statutes which provides treble damages for a vexatious suit.

> "Any person who commences and prosecutes any suit or complaint against another, in his own name, or the name of others without probable cause, and with a malicious intent unjustly to vex and trouble him, shall pay him treble damages".

The elements set out in the statute are identical with those required at the common law, and the statute does not conflict in any way with the case law existing in this jurisdiction prior to its passage. The three elements of an action for malicious prosecution are:

1. The termination of the suit complained of in a manner favorable to the defendant.
2. Lack of probable cause for bringing the suit complained of.
3. Malice on the part of the plaintiff in the suit complained of.

A. Termination:

A claim for malicious prosecution must await a termination favorable to the defendant of the proceeding on which it is based before a cause of action will accrue.[8] While judicial opinion is not uniform in its characterization of what constitutes termination "in favor of" the original defendant, there is general agreement that termination does not require an ajudication on the merits.[9] Certainly any termination of the suit effective for purposes of res judicata* is sufficient. The Connecticut rule is in accord.[10]

The rationale in support of the termination rule is threefold. First, without the termination rule, the resulting institution of counterclaims, which are less time consuming and expensive than original prosecutions, would foster the expansion of a cause of action which the courts disfavor. Second, the termination rule prevents inconsistent judgements, avoiding the result that a plaintiff might conceivably win his original action and yet lose the counterclaim for malicious prosecution. Third, if it were not for the termination rule, the introduction of evidence establishing want of probable cause and malice might prejudice the case of the original plaintiff. The plaintiff and his attorney would be placed in adverse positions as cross defendants in those instances where the malicious prosecution action is directed at both. Additionally, because the elements of malice and want of probable cause are difficult to establish, an ajudication on these issues would be hindered by the absence of an original record from which evidence could be taken.[11] A very few courts have been willing to depart from the termination requirement;

> "It is the malicious prosecution itself, and not the determination that the prosecution is malicious, which gives rise to the cause of action; that the requirement . . . that the determination precede the commencement of an action for damages is based upon considerations of justice and convenience; and that justice and convenience are promoted by allowing a counterclaim for such damage to be interposed in the action claimed to constitute malicious prosecution".[12]

However logical this opinion may appear, subsequent New York courts have not acquiesced in its logic, and the termination rule has lost none of its vitality.

B. Probable Cause:

Connecticut follows the majority rule in defining what constitutes probable cause for the institution of a suit. Probable cause is defined as "knowledge of facts sufficient to justify a reasonable man in the belief that he had reasonable grounds for prosecuting an action".[13] A successful malicious prosecution action depends upon the ability to demonstrate that the original claimant against whom the malicious prosecution action is brought instituted his claim without probable cause, i.e., without a reasonable belief in the viability of his claim.

A complete and honest disclosure to an attorney of all facts known to the claimant when the claim was instituted strongly establishes the existence of probable cause for that proceeding, provided that the attorney sought is a reputable one and the client acts in good faith in reliance upon his advice.[14] However, the mistaken belief as to the legal consequences of a person's conduct of one ignorant of the law does not furnish evidence of probable cause, no matter how reasonable the belief may be.[15] Conversely, good faith reliance on the advice of counsel, no matter how mistaken that advice may have been, is conclusive as to probable cause.[16]

If the client has acted in bad faith, either through a misfeasance in the failure to relate all relevant facts, a malfeasance in the recitation of false information, or a recitation of a claim in which he does not, in good faith, believe, he has demonstrated the lack of good faith belief in the viability of his claim, and thus fails to meet the objective tasks of probable cause. Thus the affirmative defense of advice of counsel will be unavailable to him.

C. Malice:

Malice is not only an essential element of malicious prosecution, but the very core of the action. An understanding of malice is, however, plagued by the many meanings attributed to the expression by the law and by the vagueness and ambiguity which those meanings have engendered. Proof of deliberate violence or apprehension is not required to bring a malicious prosecution action. Proof of an intentional or willful act which attempts to bring about a wrongful result, however, will be sufficient evidence to take the case to the jury.

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*A matter decided on its merits so that it cannot again be litigated between the same parties.

In Connecticut it has been held that malice may be inferred from a lack of probable cause and other circumstances relevant to the lawsuit complained of. A defendant maintained that the evidence did not support a finding of want of probable cause and malice. The court held that "If the evidence supports the former, we need not consider the latter, since it may be inferred".

> "Malice, in reference to this subject, is any improper motive. It need not imply malignity, nor even corruption, in the appropriate sense of those terms".[17]

Malice may be proved to be either actual or expressed malice by direct evidence of improper motive or bad faith, prejudice, animosity, ill will, hard feelings in instigating a prosecution, or, as is the usual case, it may be implied or inferred from the instigation of a prosecution by a defendant without probable cause—that is, without knowledge of facts sufficient to justify a reasonable man in the belief that he has reasonable grounds for prosecuting an action.[18]

The availability to a client of the absolute defense of good faith reliance upon the advice of counsel, which constitutes probable cause for the institution of a malpractice action, may prompt a defendant physician to sue the attorney representing the patient, rather than or in addition to, the patient himself. Particularly in actions as complex and time consuming as medical malpractice, prospective plaintiffs are likely to rely upon counsel in determining whether or not to prosecute. In such instances, suit against the attorney is hindered not so much by an inability to allege want of probable cause as by a difficulty in alleging malice. Although an attorney who is himself actuated by malice or who is aware of the malicious motives of his client may have demonstrated this improper motive, such situations are rare.[19] In Connecticut the permissive inference of malice, although inconclusive, may assist the defendant physician in proving his case; this area of the law has never been satisfactorily tested in this jurisdiction.

IV. THE SPURIOUS MEDICAL MALPRACTICE SUIT:

Few courts have yet confronted the difficulty of allowing an action in malicious prosecution as a remedy to the institution of spurious medical malpractice suits. The infrequency of actions for malicious prosecution and their consistent lack of success indicate the difficulties confronting the physician who pursues such a cause of action. The difficulties in establishing want of probable cause and malice are without doubt the chief obstacles facing the physician who seeks redress for malicious prosecution. Where evidence of bad faith is lacking, the physician must demonstrate that, considering only the facts known at the time of the filing, the institution of the suit was unreasonable. If the plaintiff has produced expert testimony at the trial, it would appear that the reasonableness of the plaintiff's action is conclusively established.[20] Since the issues of breach of duty and causation in the field of medicine are complex, the plaintiff, through the use of and reliance upon a medical expert, has demonstrated a reasonable belief in the viability of his suit.

Since the absolute defense of good faith reliance upon the advice of counsel may be available to the client, a prudent physician should sue both the patient and the patient's former counsel. The hardship in establishing lack of probable cause against an attorney stems not so much from the legal requirements of malicious prosecution as from the reluctance of the courts, based on public policy, to uphold such an action brought against a formerly adverse counsel. A recent California decision [21] rejected the attempt of a former defendant to demonstrate that a duty of reasonable care was owed to him by the opposing attorney. Norton, a named co-defendant in an action in which no supporting testimony was offered, countersued in simple negligence against the attorneys who had initiated the original proceeding. An alternate cause of action was stated in malicious prosecution against the former plaintiff, but a demurrer was sustained for failure to allege malice.

Urging the court to adopt a definition of duty as "the risk reasonably to be perceived", Norton asserted that he was a foreseeable third party to whom the adverse attorney had owed a duty of reasonable care. Norton claims that in advising their client to pursue an action for which there was no support, these attorneys had acted negligently and in dereliction of the standard of care imposed upon attorneys similarly situated. While agreeing, however, that the traditional strict requirement of privity of contract for the imposition of tort liability had been eased in certain situations, and that attorneys had, in the past, been held liable to third parties, the court noted that the imposition of a duty had been limited to situations in which the third party was an intended beneficiary of the attorney's conduct:

> "The determination whether in a specific case the defendant will be held liable to third persons not in privity is a matter of policy and involves the balancing of various factors, among which are the extent to which the

> transaction was intended to affect the plaintiff . . .[22]

In limited situations, it may be possible to prove actual malice in the form of ill will, particularly when the patient displays vindictiveness outside the courtroom. In a Washington case,[23] a patient dissatisfied with treatment she had received from her dentist complained of his services to several dental societies and governmental agencies. During consultation with other dentists, she further denigrated her original treatment as well as the treatment of an additional dentist whom she had consulted subsequently. Receiving no satisfaction from her complaints, she filed a malpractice action against the original dentist. While the action was pending she dismissed her attorney and entered a voluntary nonsuit for failure to prepare adequately. In response to her filing, the dentist instituted a libel and slander action, to which the patient counterclaimed in malpractice. Judgement in the libel and slander action was rendered for the physician and the counterclaim dismissed, in the absence of competent expert testimony, for failure to establish a prima facie case (not sufficient evidence to establish a presumption of fact unless rebutted).

Admittedly, such instances of actual malice are rare and not representative of typical malpractice actions. In the absence of evidence of ill will, the only available option is a demonstration of a reckless disregard for the rights of the physician. Connecticut's liberal view of the requirement of proof of malice sustains this analysis. However it should be noted that while the courts will permit the inference of malice from proof of want of probable cause, the opposite is never true: want of probable cause cannot be inferred from proof even of express malice.

Connecticut's definition of malice as any improper motive, combined with its liberal allowance for inferring malice from a want of probable cause, make Connecticut a fertile ground for testing the viability of countersuits for malicious prosecution. Nevertheless the three elements required do provide substantial barriers for the wrongfully sued physician. Viewed cumulatively, in light of the judicial sentiment against the action, the barriers appear the more substantial.

V. CONCLUSIONS:

Spurious medical malpractice suits cannot be controlled by countersuits for malicious prosecution as the law stands today. Only the most flagrant and outrageous cases would provide the aggrieved physician with sufficient evidence to demonstrate the requisite want of probable cause and malice. So long as attorneys are not required to investigate their clients allegations prior to bringing suit, it would appear that only a case where the plaintiff has actually lied to his attorney, or omitted material facts, or where the attorney has brought a suit without reasonable legal research in support of its propriety, will an action for malicious prosecution lie.

REFERENCES

1. *Grainger vs. Hill,* 4 Bing. (N.C.) 212, 132 Eng Repts 769 (1838).
2. *Page vs. Cushing,* 38 Me. 523 (1854); *Smith vs. Weeks,* 60 Wis. 94, 18 N.W. 778 (1884).
3. *Italian Style Line vs. United States Shipping Board Corporation,* 53 F. 2nd 359, 361 (2nd Cir. 1931).
4. *George vs. Leonard,* 169 F. 2nd 177 (4th Cir. 1948); *Williams vs. City Stores* 192A. 2nd 534 (D.C. Mun. App. 1963).
5. *Varga vs. Pareles,* 137 Conn. 663, 667.
6. *Lambert vs. Bretton,* 127 Me. 510, 144 A. 864, 866 (1929).
7. *Carver vs. Lykes,* 262 N.C. 345, 352-53, 137 S.E. 2nd 139, 145 (1964).
8. See e.g. *Embassy Sewing Stores, Inc. vs. Leumi Financial Corp.,* 39 App. Div. 2nd 940, 333 N.Y.S. 2nd 106 (1972); *Reichler vs. Tillman,* 21 N.C. App. 38, 203 S.E. 2nd 68 (1974).
9. *Crawford vs. Theo,* 112 Ga. App. 83, 143 S.E. 2nd 750 (1965); *Mayflower Industries vs. Thor Corporation,* 15 N.J. Sup. 139, 83 A. 2nd 246 (Ch. 1951).
10. *Wall vs. Toomey,* 52 Conn. 35, 38 (1884).
11. *Babb vs. Superior Court,* 3 Cal. 3rd 841, 846-47, 479 Pac. 2nd 379, 383-84, 92 Cal. Reporter 179, 183-84 (1971).
12. *Herenden vs. Ley Realty Company,* 75 N.Y.S. 2nd 836 (Sup. Ct. 1947).
13. *Zenik vs. O'Brien,* 137 Conn. 592, 597; citing *Parants vs. Ball,* 132 Conn. 568, 571. Accord; *Northpoint Construction Company vs. Sagner,* 185 Md. 200, 208-09, 44 A. 2nd 441, 445, (1945), citing *Owens vs. Graetzel,* 149 Md. 689, 132 A. 267 (1926).
14. *Williams vs. Frey,* 182 Okla. 556, 78 Pac. 2nd 1052 (1938); *Sazdoff vs. Bourgeois,* 301 So. 2nd 423 (La. Ct. of Apps. 1974).
15. *Vasser vs. Berry,* 85 Ga. App. 435, 436, 69 S.E. 2nd 701, 703 (1952).
16. 54 CJS, Malicious Prosecution, Section 53 (1948).
17. *Clegg vs. Miller,* 18 Conn. Sup. 502, 503 (1954).
18. *Clegg vs. Miller,* supra, at 504.
19. *Hoppe vs. Klapperich,* 224 Minn. 224, 28 N.W. 2nd 780 (1947).
20. *Lewis vs. Read,* 80 N.J. Superior 148, 170, 193 A. 2nd 255, 267 (App. Div. 1963).
21. *Norton vs. Hines,* 49 Cal. App. 3rd 917, 123 Cal. Reporter 237 (1975).
22. *Norton,* supra, at 920.
23. *Jankelson vs. Cisel,* 3 Wash. App. 139, 437 Pac. 2nd 202 (1970).

Estrogens, Menopause and Cancer

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The American Cancer Society estimates that there will be more than 3000 deaths from endometrial cancer within the next year. There will be over 400 new cases in the state of Connecticut in 1976.[1] This is in contrast to an apparent decreasing trend in the incidence of invasive cancer of the uterine cervix as shown in the overall crude incidence rate per 100,000 female population reported by the Connecticut Tumor Registry.[2] In large part, the decrease in cervical cancer rate is believed to be due to the acceptance of routine cervical screening by the Papanicolaou technique. While Cramer and Cutler from the National Institutes of Health and our late Barbara Christine from the Connecticut Tumor Registry reported no change in the age adjusted rates of endometrial cancer between 1950-1969, they did show a slight increase in the age adjusted rates of *in situ* carcinoma of the endometrium during those years indicating the possibility of greater vigilance leading to the detection of earlier tumors.[3] Because we felt that age adjusted rates may not realistically reflect what may be an actual change in the incidence of a disease which experience has shown to be most commonly diagnosed in specific older age groups, John Flannery, Director of the Tumor Registry, Resa Davids, statistician in the Department of Community Medicine at the University of Connecticut and I took another look at the data generated by the Connecticut Tumor Registry.[2] As shown in Table I, not only is there a clear trend for increasing diagnosis of uterine corpus cancer, principally endometrial carcinoma, for all ages between 1953-1973, but the age groups of greatest incidence show an even more impressive trend of increasing diagnosis in this twenty year span. Chi square analysis of this data shows a most significant increase in uterine corpus cancer between 1953 and 1973 at the $p < 0.001$ level. Therefore, the data shown in Table I leaves little doubt that the trend is toward a startling increase in the diagnosis of this disease in an aging population.

Table I

INCREASING DIAGNOSIS OF CANCER OF UTERINE CORPUS
Connecticut Tumor Registry*—Connecticut State Department of Health

	Year of Diagnosis			
Age (years)	*1953* *No.*** *(Rate)****	*1963* *No. (Rate)*	*1968* *No. (Rate)*	*1973* *No. (Rate)*
40-49	15 (10.1)	46 (24.8)	35 (18.0)	68 (35.7)
50-59	43 (35.2)	67 (46.2)	94 (56.2)	151 (83.4)
60-69	39 (43.2)	92 (83.5)	103 (86.9)	129 (97.0)
70-79	23 (46.0)	44 (64.9)	58 (75.3)	75 (89.5)
All ages	134 (12.1)	270 (19.6)	310 (20.5)	457 (28.5)

*J.T. Flannery, Director.
**Number of reported cases of *in situ* and invasive cancers arising in the uterine corpus.
***Rate/100,000 female population.

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From an address to the Section on Obstetrics and Gynecology, the 184th Annual Meeting of the Connecticut State Medical Society, Hartford, April 29, 1976.

I have been asked to address the topic of endometrial cancer relative to the use of exogenous estrogens and the menopausal status.

Pathology

Before proceeding further in our discussion of some of the current thinking regarding the place of exogenous estrogens and menopausal status in the etiology of endometrial cancer, we will pause to review the pathology of this disease. Much attention has gone into the study of the relationship between adenocarcinoma and the hyperplasias of the endometrium.[4,5] Cystic glandular hyperplasia (Figure 1) is characterized by swelling of the gland spaces and flattening of the endometrial cells to present a histologic "Swiss cheese" pattern. Cystic glandular hyperplasia is often seen coexistent with adenomatous hyperplasia and sometimes with adenocarcinoma of the endometrium. The histologic picture of adenomatous hyperplasia (Figure 2) may be a focal or diffuse pattern of hyperplastic growth of the endometrial cells causing pseudo-stratification because nuclei within the individual cells lie at different levels as the result of compression of the closely packed cells within the glands. This in turn causes back-to-back crowding of the endometrial cells with considerable loss of the intervening stroma. In the more severe cases, papillary growth with intraluminal budding of the endometrial cells is seen. There has been a definite association of this lesion with adenocarcinoma of the endometrium. In its most severe form, adenomatous hyperplasia has been termed "atypical hyperplasia" and carcinoma *in situ* of the endometrium by various pathologists. Frank adenocarcinoma (Figure 3) of the endometrium is characterized by cellular atypia and irregular growth with further crowding of the glands and loss of intervening stroma and finally proliferation and dedifferentiation to the point of developing areas of solid tumor and loss of glandular structure.

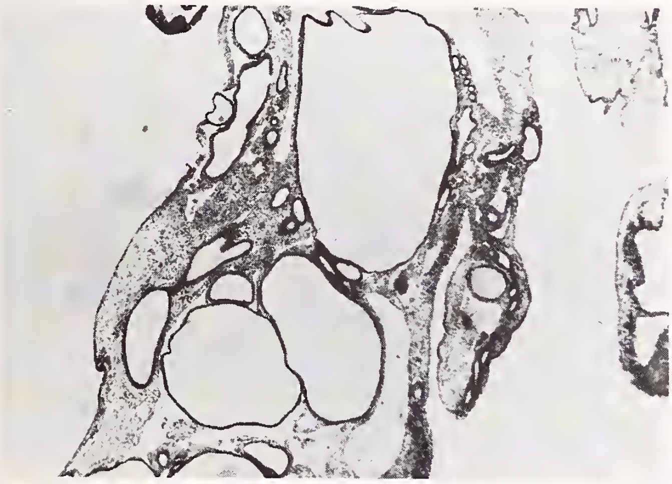

Figure 1

Endometrial curettings showing cystic glandular hyperplasia. Low power microscopic photograph illustrates enlargement of gland spaces and flattening of the endometrial cells lining the glands giving the typical "Swiss cheese" pattern. The glands are generally separated with intervening stroma which may be compressed as the gland spaces enlarge.

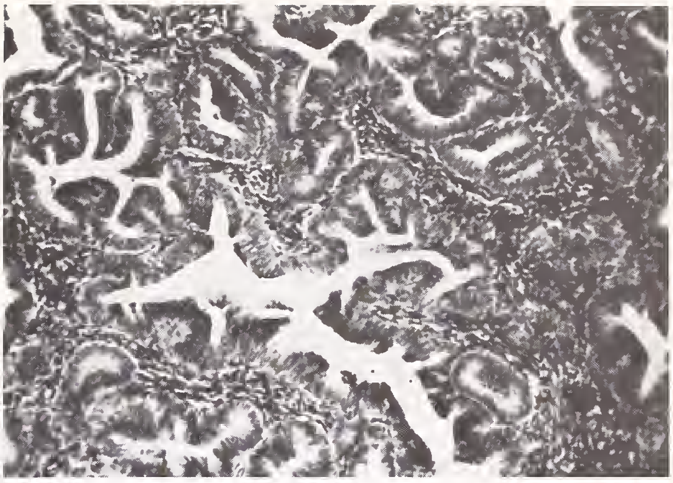

Figure 2

Endometrial curettings showing adenomatous hyperplasia. Low power microscopic photograph illustrates hyperplastic growth of endometrial cells lining glands with resultant intraluminal cellular compression and budding. Note crowding of glands with thinning of interglandular stroma.

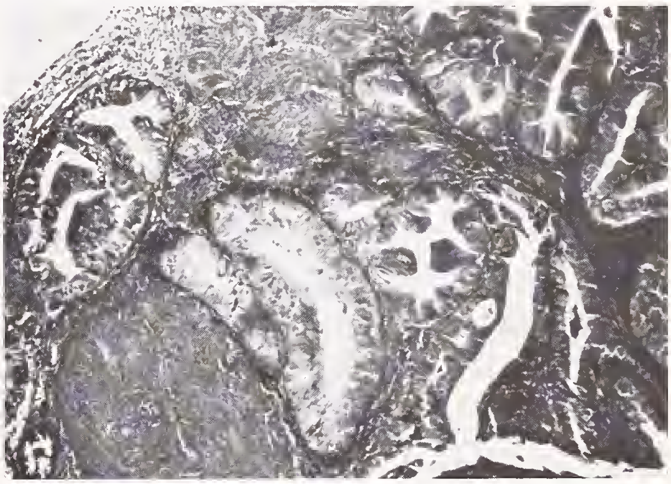

Figure 3

Endometrial curetting showing partially differentiated adenocarcinoma. Low power microscopic photograph illustrates atypical endometrial cells crowding but maintaining glandular luminae in most areas but with formation of solid tumor at the top and in most areas but with formation of solid tumor at the top and in the lower left corner of the field. Note considerable compression of intervening stroma between tumorous glands.

Endocrinology

Now we will briefly review the endocrinology which is necessary to continue our discussion. Figure 4 presents the basic chemical formula of the steroid sex hormones. Estrone (E1) is the typical female sex hormone, or estrogen. Each of these sex hormones is basically built upon the perhydrocyclopentanophenanthrene nucleus, composed of 17 carbon atoms. The estrogens are all eighteen carbon compounds. Androgens, the male sex steroids, are 19 carbon compounds represented here by testosterone (T), the

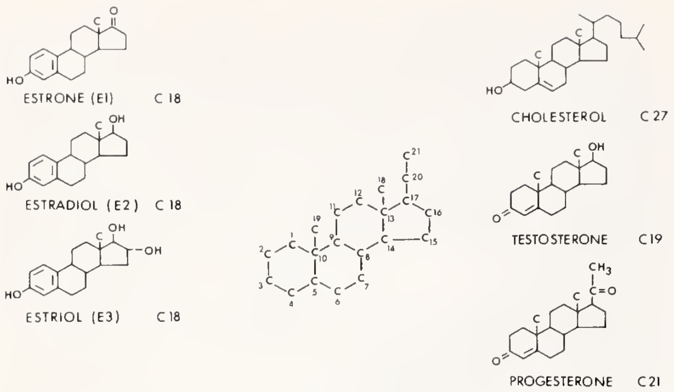

Figure 4
Steroid Sex Hormones. The naturally occurring female hormones, 18 carbon estrogens, on the left. Perhydrocyclopentanophenanthrene nucleus with 21 carbon atoms in the center. Cholesterol with 27 carbon atoms from dietary sources and metabolism, top right. Testosterone, the biologically potent male hormone, represents the 19 carbon androgen, middle right. Progesterone with 21 carbon atoms, lower right.

biologically most potent androgen. The progesterones are 21 carbon compounds. The three major natural estrogens in man are estrone (E1), estradiol (E2), and estriol (E3). By various metabolic pathways, these estrogens are interconvertible. Estradiol (E2) is the functionally most important estrogen in the ovulating premenopausal female. Following menopause, estrone is the most important estrogen in maintaining end organ response. Whereas estriol is found at elevated levels as an excretory product, especially during pregnancy and lactation, both dietary and endogenous estrogens contribute to the circulating estrogen pool. Ingested acetates and cholesterol are converted through various metabolic pathways in several of the body's tissues to the steroid sex hormones. Numerous pathways have been proposed and confirmed. Figure 5 shows two of the most important pathways: 1) through pregnenolone and dehydroepiandrosterone (DHEA) to androstenedione (A), and 2) through pregnenolone, progesterone (P), and 17-hydroxyprogesterone (17 OHP) to androstenedione.[6] Androstenedione, an androgen, in turn may be dehydrogenated to testosterone primarily in the gonads and perhaps also in the adrenal gland or by aromatization, androstenedione may be converted to estrone (E1). This later conversion is believed to take place in various "non-endocrine" end organ sites, most frequently identified with the dermis and adipose tissues.[7, 8] In the premenopausal ovary, the androgen precursors are converted to estradiol (E2) and estrone (E1) which in turn is interconvertible with estradiol, the major functioning estrogen in the ovulating woman.[6] The enzyme necessary for the conversion of E1 to E2 may be lost in the non-follicular, non-ovulating ovary; so the circulating levels of E2 markedly decline following menopause and follicular atresia.[9, 10] It is of interest that some recent work has shown that E2 is the estrogen which has specific nuclear binding and thus presumably endocrine function in *in vitro* experiments. Although estrone (E1) can effectively compete for cytoplasmic binding sites with E2,[11] it may be intracellularly converted to E2 in endometrial tissues.[12, 13] So we see that the levels of circulating estrogens depend upon 1) dietary sources, 2) steroidogenesis of estrogens, primarily estradiol, (E2) in the premenopausal ovary, and 3) end organ conversion of androgenic precursors from the adrenal cortex and ovary to estrogens, primarily estrone (E1). Some preliminary experimental data correlate conversion of androstenedione to estrone with several indices of obesity,[8, 14] and a recent German study showed a more efficient *in vitro*

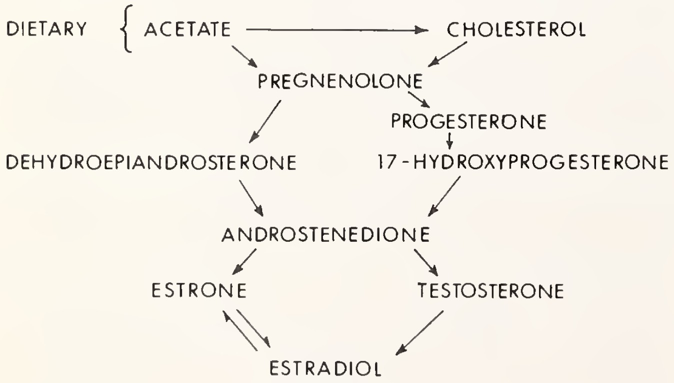

Figure 5
Steroid biosynthesis. Two major biosynthetic pathways from dietary sources of acetate and cholesterol to the androgens, dehydroepiandrosterone (DHEA), androstenedione (A) and testosterone (T) and the estrogens, (E1) and estradiol (E2).

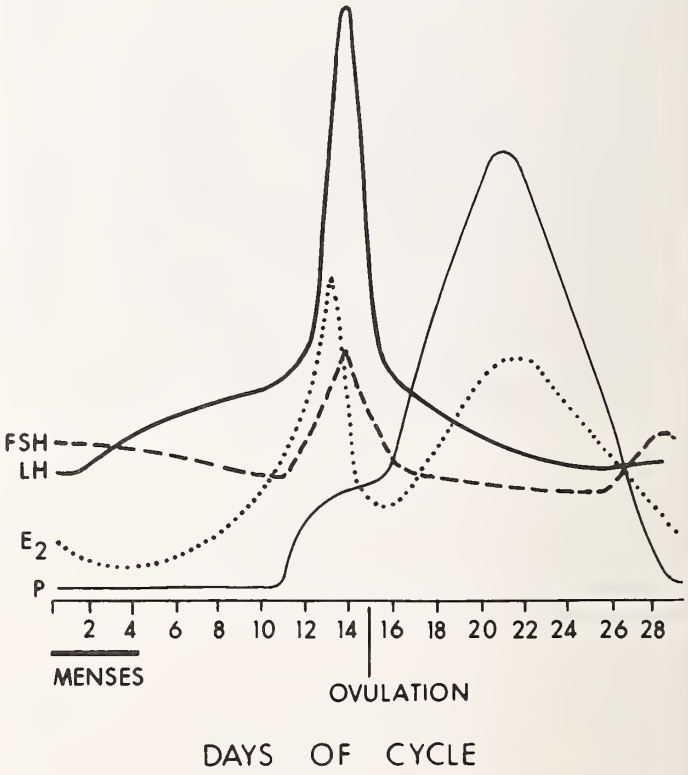

Figure 6
Monthly fluctuation of circulating estrogen (E2), progesterone (P) and gonadotrophins (LH and FSH) during an ovulatory cycle in the premenopausal woman.

conversion of androstenedione to estrone in subcutaneous adipose tissues obtained from patients with endometrial cancer that with fatty tissues obtained from patients with leiomyoma uteri, endometrial polyps or a granulosa cell tumor.[7]

Now let us take a look at the monthly fluctuation of circulating estradiol in the follicular ovulating ovary. In Figure 6 we see that estradiol (E2) rises from its lowest level in the first few days of the cycle during menses to an apex just prior to ovulation. The shoulder of this rise in estradiol is followed by a beginning elevation of lutenizing hormone (LH) which climaxes just after the estrogen peak and approximately 24 hours prior to ovulation. Follicle-stimulating hormone (FSH) gradually declines with the shoulder of the estradiol curve, but then peaks coinciding with the crest of the LH surge; thereafter the pituitary gonadotrophins, LH and FSH, decline as the E2 levels decline. Following ovulation we see another gradual rise in estrogen which is accompanied by a steady rise in progesterone (P), both believed to be occasioned by the formation of the corpus luteum in the ovary. Failing conception, there is a rapid fall in the circulating levels of progesterone and estrogen just prior to menses and normally the institution of another cycle. The central control of the ovulatory cycle and fluctuation of hormones has been quite well and interestingly worked out over the past 20 years. We will not dwell on this in detail. But suffice it to say that hypothalamic centers in the brain are the targets for both positive and negative feedback of circulating steroidal hormones produced in the ovary with the resultant release or inhibition of factors which travel through a portal venous system to the anterior pituitary gland which in turn releases the gonadotrophins (FSH and LH).[6] So both circulating levels of sex steroids and supratentorial influences may act at this level to inhibit or cause the release of stimulatory factors. There are also short feedback pathways by which gonadotrophin levels in the portal system may stimulate or inhibit the releasing factors and ultra-short feedback systems whereby increasing levels of the releasing factors may be self-inhibiting.[6] Thus in Figure 7, we see levels of circulating estrogens increasing just prior to the late childhood growth spurt reaching their peak following menarche and fluctuating with each ovulatory cycle throughout the reproductive life of the woman. There are intermittent decreases in the peripheral levels of estrogen with lessening of ovulatory frequency prior to menopause, and finally rapid decline in circulating estrogens following the cessation of ovarian ovulatory function. This monthly fluctuation and finally the decrease below the baseline level at menopause is to be contrasted with a steady but persistently low level of estrogen accompanied by an elevated but non-functioning flat gonadotrophin curve in the non-ovulatory state termed "persistent esterus," which has been associated with both endometrial hyperplasias and is implicated by Gusberg as the hormonal milieu which favors the development of endometrial cancer.[4]

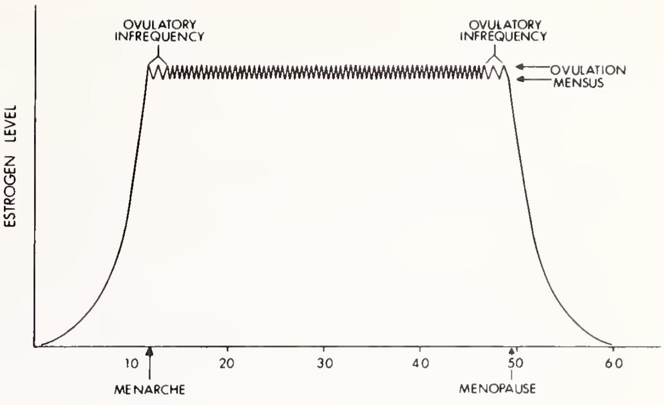

Figure 7

Biological levels of estrogens rise prior to menarche, fluctuate with each ovulatory cycle through womans' reproductive life and decline following menopause. Estradiol (E2) is the predominant estrogen during reproductive life.

Twenty to thirty percent of postmenopausal patients with estrogen-secreting ovarian tumors were found to have coincidental endometrial cancer in several series.[15, 16, 17] It has been shown that adenomatous hyperplasia can be matured by cyclic imposition of progesterone by exogenously administered estrogen-progesterone hormone cycles or by inducing ovulation in the non-ovulatory female through wedge resection of the ovaries or by gonadotrophin stimulation.[18, 19] Older data showed that endometrial cancer developed in 12% of 100 women who were followed after the diagnosis of adenomatous hyperplasia, and 78% of patients with endometrial cancer were found to have hyperplasia in previous endome-

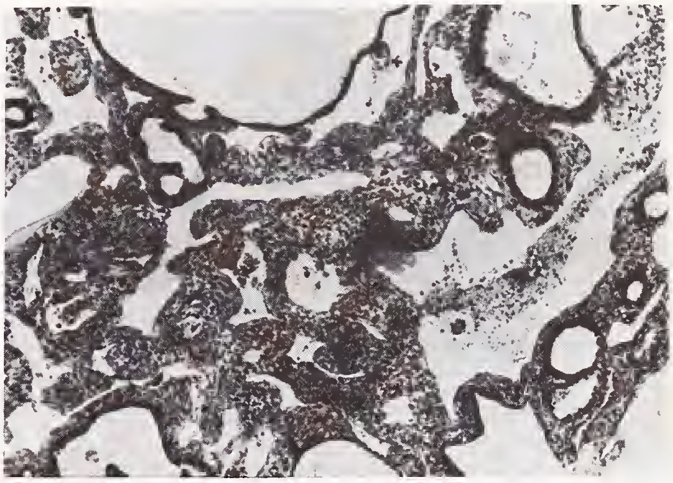

Figure 8

Endometrium showing adenocarcinoma associated with cystic glandular hyperplasia. Low power microscopic photograph illustrates partially differentiated adenocarcinoma in center of field surrounded by dilated cystic glands. Other areas of this endometrium shows adenomatous hyperplasia, and there are areas of solid tumor.

trial curettages.[4, 20] Although we found fewer than 5% of endometrial cancers in women younger than 40 years,[21] several series have shown a 20% incidence of this disease in young females with the non-ovulatory, persistent esterus state of Stein-Leventhal syndrome;[22] and anovulatory infertility has been associated with adenomatous hyperplasia and subsequent development of frank adenocarcinoma of the endometrium.[23] Indeed, the frequent co-occurrence of cystic glandular hyperplasia and adenomatous hyperplasia, both felt to be related to persistent non-fluctuating stimulation of the endometrium by estrogens with frank adenocarcinoma (Figure 8) is itself implicating.

Now we will take a more intense look at the endocrinology of the post-menopausal woman. Following exhaustion of functioning ovarian follicles there is a rapid decrease in circulating estrogens (E2) and an increase in the serum gonadotrophins (Figure 9). A recent very interesting paper demonstrates that in post-menopausal women the circulating level of estrogens (E1 and E2) and progesterone (P and 17 OHP) hormones were equal in the oophorectomized and non-oophorectomized patient; whereas there were significantly lower levels of circulating androgens (testosterone T, dihydrotestosterone DHT, androstenedione A, and perhaps dehydroepiandrosterone DHEA) in the oophorectomized patient.[24] This is summarized in Table II. When the adrenal cortex was stimulated with ACTH, there was an increase in circulating estrone (E1) but no change in the levels of estradiol (E2) while progesterone, hydroxprogesterone and androgen levels increased. When the adrenal gland was blocked with dexamethasone in the oophorectomized postmenopausal patient, there was a decrease in both E1 and E2 as well as progesterone and to a lesser extent the androgens. When the adrenal gland was blocked with dexamethasone and the ovary was stimulated with human chorionic gonadotrophin (hCG) in post-menopausal women, there was no change in the circulating estrone (E1) or estradiol (E2) and slight but not significant increases in 17 hydroxyprogesterone, testosterone and DHEA. This indicates that if the ovary functions at all in the postmenopausal woman, it functions as an androgen or androgen precursor producing gland, and implicates the adrenal cortex as the most likely source of circulating estrogens in the form of estrone (E1), probably through the mechanism of producing androgenic estrogen precursors as we discussed before. To recapitulate then, in postmenopausal women the adrenal glands are the source of androstenedione which may be converted in adipose tissue to estrone or may be degraded in the liver to excretory products as illustrated in Figure 10. Estrone may also be metabolized in the liver to estriol. Therefore increased production of androstenedione, principally by the adrenals, but also possibly by the ovaries; increased conversion of androstenedione to estrone (E1); or decreased metabolism of androstenedione in the liver or decreased conversion of estrone to estriol in the liver (especially in disease states, such as fatty infiltration) can lead to increased circulating levels of estrone (E1). It has been hypothesized that cellular binding and transfer of estradiol (E2) to the nuclear receptor sites of endometrial cells results in normal response whereas estrone (E1) binding results in neoplasia; and while estriol may compete for the nuclear-binding sites, it is not very effective.[25] It has

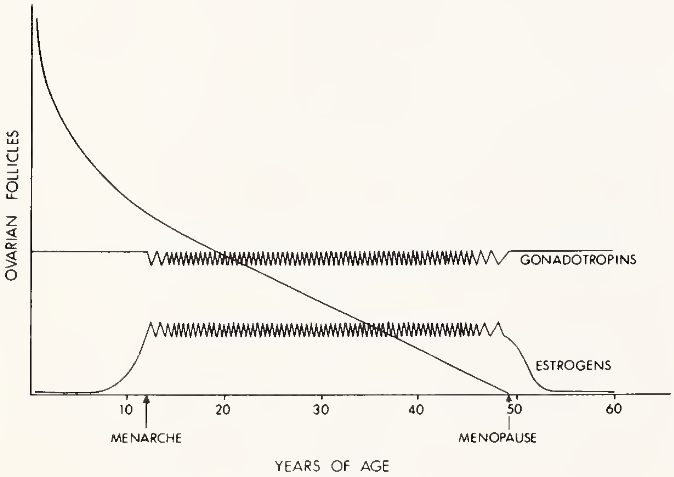

Figure 9

Gonadotrophins (LH and FSH) circulate at inverse proportion to the biological levels of estrogens, primarily estradiol (E2), which fluctuate with each ovulatory cycle during the reproductive period of woman's life. LH and FSH levels are high prior to menarche and following ovarian follicle exhaustion after the menopause. Estrone (E1), the predominate estrogen after follicular atresia, may persist at low, nonfluctuating levels after menopause.

Table II

PLASMA SEX STEROID HORMONES IN POSTMENOPAUSAL WOMEN*
(4-10 years postmenopause. 52-64 years age)

Hormone	*ovari-ectomized*	*non-ovariectomized*			
	basal	*basal*	*ACTH*	*dexa-methasone*	*hCG with dexa-methasone*
E_1	e	e	↑↑	↓↓	e
E_2	e	e	e	↓↓	e
P	e	e	↑↑	↓↓	e
170HP	e	e	↑↑	↓↓	↑
T	↓↓	e	↑↑	↓	↑
DHT	↓↓	e	↑↑	↓	e
A	↓↓	e	↑↑	↓	e
DHEA	↓	e	↑↑	↓↓	↑

e = basal levels, unchanged
↓ = decreased, not statistically significant
↓↓ = significant decrease
↑ = increase, not statistically significant
↑↑ = significant increase
*From the studies of Vermeulen, A.: JCEM, 42:247, 1976.

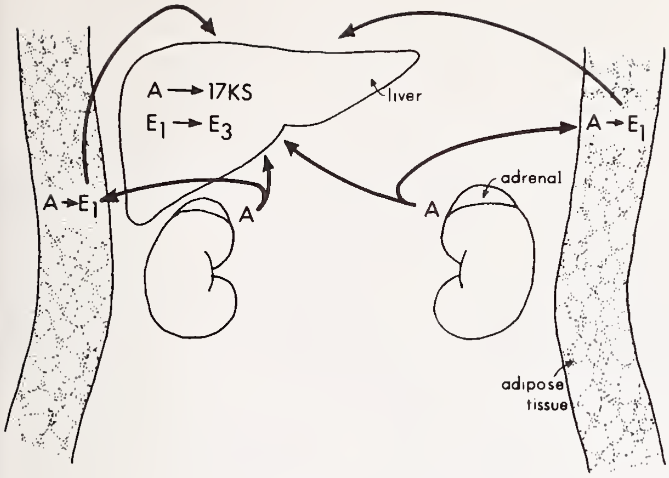

Figure 10
Estrogen production in the postmenopausal woman. Androstenedione (A) synthesized in the adrenal gland circulates to adipose tissues where conversion to estrone (E1) takes place. In the liver, androstenedione is metabolized to 17-ketosteroids (17KS) and estrone to estriol (E3). 17 KS and E3 are excretory products of low biological activity.

been further hypothesized that estrone and estradiol compete for the cytoplasmic receptor sites and that these sites can be blocked or reduced by progesterone.[12] Later work suggests that, in endometrial cells, estrone (E1) acts competitively with estradiol (E2) for the cytoplasmic receptors, but it is then converted within the cell to estradiol (E2) which in turn may be bound to nuclear receptors.[13] Estriol (E3) in high concentrations can compete with estrone (E1) and estradiol (E2) for cytoplasmic receptor sites,[11] but its binding to nuclear receptor sites is short-lived.[25]

Exogenous Hormones

What is the role of exogenous estrogens in the generation of endometrial cancer? I am afraid that we have not yet accumulated enough data to answer this question. Nonetheless, it is interesting to look at some of the recently published observations which are summarized in Table III. As mentioned before, fewer than 5% of endometrial cancers develop in women under 40 years of age.[21] A registry founded at the University of Colorado for young women under 40 years of age who develop endometrial cancer while taking oral contraceptives has accumulated 21 patients in the past 2 years.[26] Fifteen had adenocarcinoma or adenoacanthoma, four patients had clear cell secretory carcinomas, and two were reported as adenosquamous carcinoma. These authors found it interesting that after excluding 8 patients who gave a poor history for the type of oral contraceptives which they had taken, or who had been given oral contraceptives for antedating bleeding and those with polycystic ovaries, 11 of the 13 remaining patients had received sequential types of oral contraceptives. Besides the report from the University of Colorado registry, there have been other reports of endometrial cancers developing in young women taking sequential estrogen-progesterone contraceptives.[27, 28] Within recent years, there have been several reports of young patients with gonadal dysgenesis (Turner's Syndrome) who developed endometrial cancer after prolonged treatment with diethystilbesterol, a non-steroidal estrogen, to promote the development of secondary sexual features.[29, 30] Lately, there have been recent widespread references in the popular press to articles which appeared in the *New England Journal of Medicine* in December, 1975. These studies showed that a significantly greater number of patients with endometrial cancer reported taking exogenous estrogens in their past history than did their matched cohorts without endometrial cancer.[31, 32] From these data, the authors implied an increased risk for this neoplastic disease.

Table III
EXOGENOUS ESTROGENS AND ENDOMETRIAL CANCER

diethylstilbesterol	gonadal dysgenesis (Turner's Syndrome)	Cutler, B.S., et al. NEJM 287:628, 1972
		Wilkinson, E.J., et al. Obst. Gynec. 42:193, 1973
sequential estrogen-progestin	conception	Lyon, F.A. Amer. J. Obst. Gynec. 123:229, 1975
		Kelly, H.M., et al. Obst. Gynec. 47:200, 1976
exogenous estrogens	"menopausal symptoms"	Smith, D.C., et al. NEJM, 293:1164, 1975
conjugated estrogens		Ziel, H.K. and Finkle, W.D. NEJM, 293:1167, 1975

There are those who have proposed that the increasingly common use of exogenous estrogens for the treatment of "menopausal syndrome" may have led to an increased incidence of glandular carcinomas of the uterus or a changing pattern in the histologic type.[29, 33] Ng, Reagan, et al. have reported an increasing experience with adenosquamous carcinoma in the past 30 years.[33, 34] Adenosquamous carcinoma (Figure 11) is a type of endometrial cancer in which malignant squamous elements are mixed with adenocarcinoma in contrast to the usual pure adenocarcinoma or adenoacanthoma in which benign squamous metaplasia is associated with malignant glandular tissue. In our experience, adenosquamous carcinoma has been an extremely rare tumor in several of our affiliated hospitals. The sign-out diagnoses of malignant glandular tumors of the uterine corpus at New Britain General Hospital have been reviewed for the past five years, and while 106 cases of adenocarcinoma, nine cases of adenoacanthoma, and four cases of mixed Mullerian tumors (carcinosarcoma) have been reported, we have seen no cases of adenosquamous carcinoma.[21] We are in

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- Some patients may have dry mouth, drowsiness, and sedation. Tell them that these tend to diminish with continued use.
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*Tolerance may develop in some patients, necessitating a reevaluation of therapy.

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HYPERTENSION

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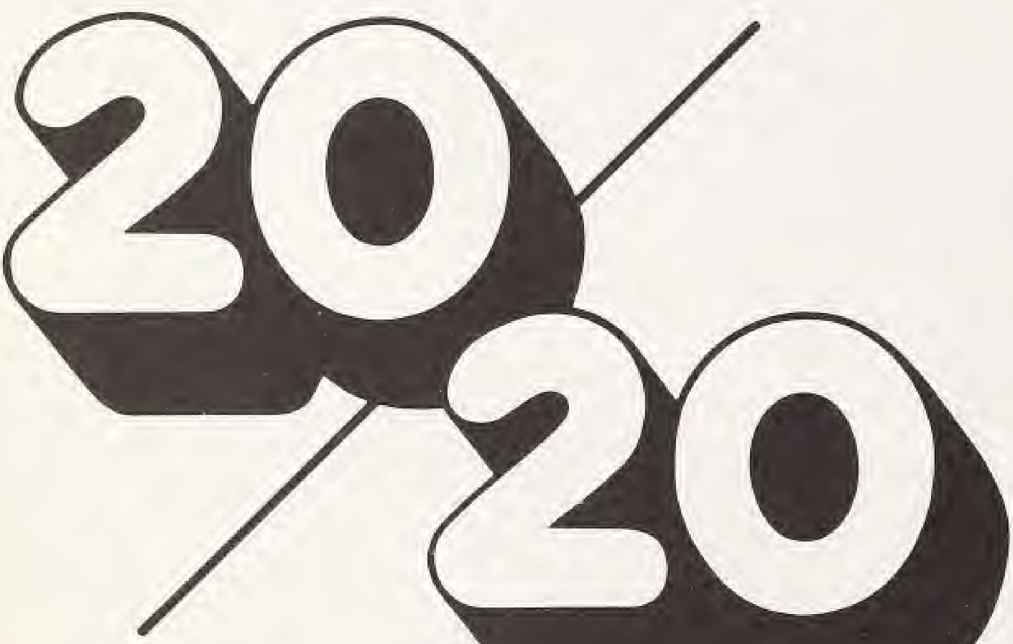

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It may be employed in a general treatment program
with a diuretic and/or other antihypertensive agents
as needed for proper patient response.

Warnings: Tolerance may develop in some patients
necessitating a reevaluation of therapy.
Usage in Pregnancy: In view of embryotoxic findings
animals, and since information on possible adverse
effects in pregnant women is limited to uncontrolled
clinical data, the drug is not recommended in wome
who are or may become pregnant unless the potenti
benefits outweigh the potential risk to mother and f
Usage in Children: No clinical experience is availabl
with the use of Catapres (clonidine hydrochloride) i
children.

Precautions: When discontinuing Catapres (clonidin
hydrochloride), reduce the dose gradually over 2 to
4 days to avoid a possible rapid rise in blood pressu
and associated subjective symptoms such as nervou
ness, agitation, and headache. Patients should be
instructed not to discontinue therapy without consult
their physician. Rare instances of hypertensive ence
lopathy and death have been recorded after cessatio
of clonidine hydrochloride therapy. A causal relation
ship has not been established in these cases. It has
been demonstrated that an excessive rise in blood
sure, should it occur, can be reversed by resumption
of clonidine hydrochloride therapy or by intrave-
nous phentolamine. Patients who engage in poten-
tially hazardous activities, such as operating machin
or driving, should be advised of the sedative effect.
This drug may enhance the CNS-depressive effects
alcohol, barbiturates and other sedatives. Like any
agent lowering blood pressure, clonidine hydrochlor
should be used with caution in patients with severe
coronary insufficiency, recent myocardial infarction,
cerebrovascular disease or chronic renal failure.

As an integral part of their overall long-term care,
patients treated with Catapres (clonidine hydrochlor
should receive periodic eye examinations. While,
except for some dryness of the eyes, no drug-relate
abnormal ophthalmologic findings have been record
with Catapres (clonidine hydrochloride), in several
studies the drug produced a dose-dependent increa
in the incidence and severity of spontaneously occu
ring retinal degeneration in albino rats treated for
6 months or longer.

Adverse Reactions: The most common reactions ar
dry mouth, drowsiness and sedation. Constipation,
dizziness, headache, and fatigue have been reporte
Generally these effects tend to diminish with contin
therapy. The following reactions have been associat
with the drug, some of them rarely. (In some instanc
an exact causal relationship has not been establish
These include: Anorexia, malaise, nausea, vomiting,
parotid pain, mild transient abnormalities in liver fu
tion tests; one report of possible drug-induced hepa
titis without icterus and hyperbilirubinemia in a pati
receiving clonidine hydrochloride, chlorthalidone, a
papaverine hydrochloride. Weight gain, transient ele
tion of blood glucose, or serum creatine phosphokin
congestive heart failure, Raynaud's phenomenon; vi
dreams or nightmares, insomnia, other behavioral
changes, nervousness, restlessness, anxiety and me
depression. Also rash, angioneurotic edema, hives,
urticaria, thinning of the hair, pruritus not associate
with a rash, impotence, urinary retention, increased
sensitivity to alcohol, dryness, itching or burning of
eyes, dryness of the nasal mucosa, pallor, gyneco-
mastia, weakly positive Coombs' test, asymptomatic
electrocardiographic abnormalities manifested as
Wenckebach period or ventricular trigeminy.

Overdosage: Profound hypotension, weakness, som
lence, diminished or absent reflexes and vomiting f
lowed the accidental ingestion of Catapres (clonidi
hydrochloride) by several children from 19 months
5 years of age. Gastric lavage and administration of
analeptic and vasopressor led to complete recovery
within 24 hours. Tolazoline in intravenous doses of
10 mg at 30-minute intervals usually abolishes all e
fects of Catapres (clonidine hydrochloride) overdos

How Supplied: Catapres, brand of clonidine hydro-
chloride, is available as 0.1 mg (tan) and 0.2 mg
(orange) oval, single-scored tablets in bottles of 10
and 1000.

For complete details, please see full prescribing
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the process of reviewing each case and have completed several years. While there seems to be a slightly higher percentage of adenoacanthoma, or at least adenocarcinoma associated with small to moderate amounts of benign squamous metaplasia, we have not yet come across a single case of adenosquamous carcinoma. Our experience and informal review indicate that women under the care of gynecologists in this part of Connecticut have had a broad experience with exogenous estrogens both in the form of oral contraceptives and estrogens for menopausal symptoms.

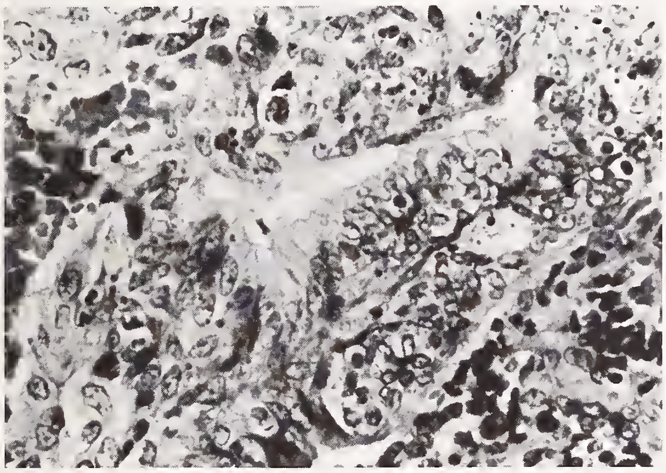

Figure 11
Endometrium showing adenosquamous carcinoma. High power microscopic photograph showing atypical glands in the center of field associated with malignant squamous elements in upper left and lower right corners.

Detection of Occult Endometrial Cancer

Whether or not there is in fact an increasing occurrence of endometrial cancer, there certainly is increasing experimental and observational information which would favor increased diagnosis of this disease. As we may expect to be most successful in treating endometrial cancer when it is discovered in its earliest and perhaps asymptomatic stages, we are obliged to address ourselves to the task of detecting occult disease. While heretofore, 80-90% of endometrial cancer presented as abnormal uterine bleeding. some of these cases represented advanced tumors.[35] Positive cervico-vaginal Papinicolaou smears have been found in no more than 25% of asymptomatic patients with endometrial cancer.[21, 35, 36]

What then can be done to detect this disease prior to overt symptomatology? It has been shown that with advancing age the finding of "normal" endometrial cells on conventional cervico-vaginal smears was correlated with progressively higher incidences of endometrial pathology (polyps and hyperplasia).[37] In patients in their fifth, sixth and seventh decades there was a significant association of normal endometrial cells on cervico-vaginal smears with endometrial cancer.[37] There was a progressive increase in the numbers of abnormal cells and shedding of endometrial cells found in the Pap smears associated with endometrial pathology of advancing severity from cystic hyperplasia through adenomatous hyperplasia, atypical hyperplasia, *in situ* carcinoma, and finally frank invasive carcinoma through its more dedifferentiated grades.[38] Therefore one would expect exfoliation of cells to be most significant in the less differentiated endometrial lesions which consequently may be more readily detected by cytologic techniques. With this in mind it seems to me that in the prophylactic gynecologic examination of women who have reached the age of forty, the very least which one should do is to make particular efforts to obtain endometrial cells when taking the Pap smear. The common Ayers spatula is not very efficient in this regard.[38] I use a saline moistened small cotton tipped applicator to obtain an endocervical smear in all of my patients, and in patients beyond their late thirties a suction bulb endocervical aspirator is used. (Figure 12)

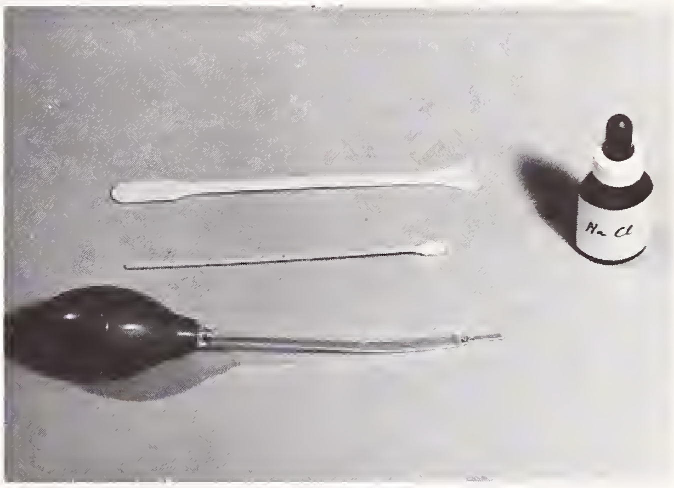

Figure 12
Ayers spatula at the top of figure as used for routine vaginal-cervical cytologic smears. This technique is not very efficient for the collection of cells exfoliated by the endometrium. Saline moistened cotton tipped applicator middle, and endocervical bulb aspirator bottom, should also be used in the collection of cells from perimenopausal and postmenopausal women for Papanicolaou tests.

In the past, conventional Novak endometrial biopsies have been advocated for patients showing the slightest suspicion or symptomatology which may indicate endometrial pathology. The accuracy of this technique ranges from 65 to nearly 100% in patients proven to have endometrial cancer. The overall accuracy of endometrial biopsies, obtained from a recently published review is 75%.[39] This is an unacceptable inaccuracy for any technique designed to uncover occult intrauterine cancer in diagnostic screening programs.

We have used the Gravlee Jet Washer®[40, 41] (Figure 13) to perform endometrial irrigation in over 300 patients.[42] This technique or a modification may prove to be the preferred method for screening asymptomatic patients. By means of exerting negative pressure, irrigant is lavaged through the endometrial cavity, expectantly dislodging those cells most loosely adherent, such as hyperplastic or atypical cells to be recovered for cytologic study. This process also recovers both gross and microscopic fragments of tissue suitable for histologic studies. We have had a high degree of accuracy in the diagnosis of frank endometrial carcinoma which was later confirmed by curettage in mildly symptomatic patients.[42, 43] We know of no patient in whom the disease was missed in our hands even when the tumor was well differentiated.[42] We were less successful in the diagnosis of hyperplasia which was later confirmed by sharp operative curettage. Table IV compares the diagnoses made by endometrial irrigation with the results of twenty consecutive uterine D & C's. Our results are corroborated by review of the literature (Table V) in which the Gravlee Jet Washer was shown to accurately detect 90% of the endometrial carcinomas in symptomatic patients but was less useful for the recovery of cells or tissues which allowed the diagnosis of adenomatous hyperplasia.[39-41, 44-56] We process our irrigant solution by removing all gross tissue fragments and submitting them for routine histologic study with H and E stain. The fluid is then divided into two aliquots. One is centrifuged and the cell block is prepared for histologic examination with H and E staining. The second aliquot is passed through a Millipore® filter, which is prepared for Papanicolaou staining and cytologic study (Figure 14).

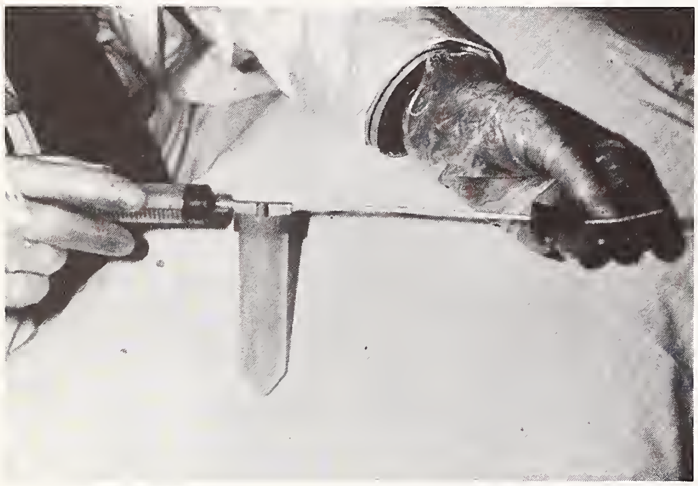

Figure 13
The sterile, disposable Gravlee jet washer used for endometrial irrigations employs negative pressure generated by withdrawing the cylinder of a large syringe to lavage the entire uterine cavity and return irrigant containing exfoliated endometrial cells and tissue to the collecting reservoir for cytohistologic preparations and study.

Table IV

HISTOLOGIC DIAGNOSIS FROM ENDOMETRIAL IRRIGATION OF TWENTY CONSECUTIVE PATIENTS COMPARED WITH CURETTAGE*

Indication	*Irrigation*	*Curetting*
PMB	adenoca.	adenoca.
PMB	mucus only	fragment em. polyp
PMB	inactive em.	atypical hyperplasia
Pap III	prolif. em.	prolif. em. - focal CGH
PMB	adenoca.	adenoca.
PMB	insufficient	cystic atrophy
PMB	endometritis	endometritis
Pap III	menstrual em.	menstrual em.
DUB	prolif. em.	prolif. em.
cervicitis	frag. benign em.	inactive em.
PMB	insufficient	prolif. em.
PMB	atrophic em.	atrophic em.
DUB	prolif. em.	prolif. em.
Pap IV	prolif. em.	prolif. em.
Pap III	benign em.	secret. em.
PMB	insufficient	atypical hyperplasia
PMB	adenoca.	adenoca.
PMB	insufficient	em. polyp

*Casey, M.J., Kiertisak, P. and Madden, T.
**PMB: post menopausal bleeding
***DUB: dysfunctional uterine bleeding

Table V

ENDOMETRIAL SAMPLING OF SYMPTOMATIC WOMEN

	successful	*adenomatous (atypical) hyperplasia*	*endometrial carcinoma*	*inadequate samples*
Gravlee Jet				
Abate, et al[44]		1/7	6/6	
Afonso[71]		5/51	6/12	28/220
Bibbo, et al.[45]		8/8	5/5	7/305
DePetrillo, et al.[46]	130/141		9/11	
Dowling, et al.[40]		0/2	51/56	420/1500
Hibbard and Schwinn[48]		0/4	6/6	27/287
Kanbour, et al.[49]		3/3	13/13	8/230
Lukeman[50]		24/29	79/85	31/291
Rodriques, et al.[51]		11/39	3/7	
Smith, et al.[52]			56/64	
So-Bosita, et al.[53]	104/107	9/9	7/7	1/104
Underwood, et al.[54]		4/4	27/28	42/225
Vassilakos, et al.[55]	97/100	2/3	8/8	5/97
White, et al.[56]			28/29	2/31
Vabra Aspirator				
Bjerre, et al.[58]		3/3	1/2	
Cohen, et al.[59]		3/3	9/9	
Denis, et al.[60]		1/1	1/1	133/141
Jensen[61]			12/12	345/350
Liu, et al.[62]	200/208	10/13	0/1	

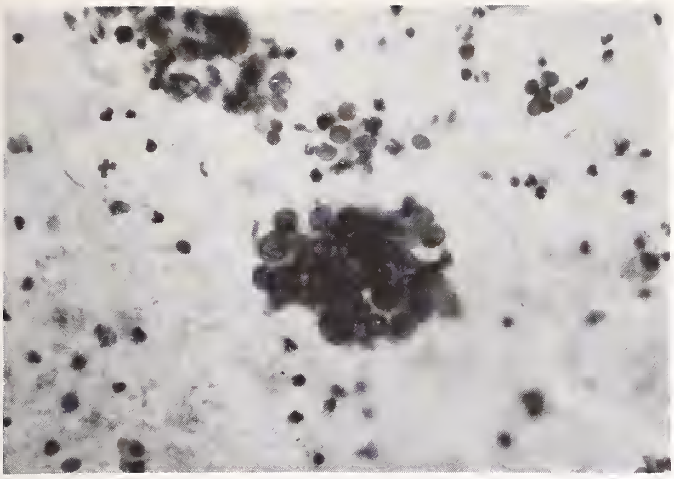

Figure 14
High power microscopic photograph of filter preparations showing atypical endometrial cells obtained by intrauterine irrigation of a postmenopausal woman who was then found to have adenocarcinoma of the endometrium. Note varied size of nuclei; prominent and multiple nucleoli, distinct, irregular nuclear membrane and chromatin clumping.

Over 200 endometrial irrigations have been carried out with the Gravlee Jet Washer on asymptomatic patients during their routine visits to the private offices of several gynecologists affiliated with the Department of Obstetrics and Gynecology at the University of Connecticut. In a study of 201 of these patients over 40 years of age, forty percent of whom were postmenopausal, endometrial irrigation was completed in 88% and was found to be very difficult in only 7.5% of these patients (Table VI).[57] Introduction could not be accomplished in 24 patients (12%). The reasons for these failures were cervical stenosis in 13 patients and a cervical fibroid which prevented passage of the uterine sound in one patient. In three other women the irrigator could not be inserted although the cervix could be sounded. Small senile vagina and severe discomfort led to abandoning the procedure in 3 patients. Although the irrigator could be introduced into two other patients, suction was inadequate for lavage. Seventy-four percent of the patients reported slight or no discomfort with the procedure (Table VII), and only 5% complained of severe discomfort. We noticed an increased trend towards discomfort in those patients who were postmenopausal, but this was more directly correlated with advancing age.[57] When successful irrigation was accomplished the material was adequate for cytologic diagnosis in 95% of the specimens.[42, 57] Histologically adequate specimens were recovered in 60% of the irrigants. When these methods of diagnosis were combined, only 2.26% of the specimens were inadequate for both cytologic and histologic diagnosis.[42]

Table VI

INTRODUCTION OF ENDOMETRIAL IRRIGATOR IN ASYMPTOMATIC WOMEN OVER 40 YEARS OF AGE

Introduction	*Number*	*Patients (Percent)*	
Easy	112	(55.7%)	162 (80.6%)
Slightly difficult	50	(24.9%)	
Very difficult	15	(7.5%)	39 (19.4%)
Not accomplished	24	(11.9%)	

Table VII

SUBJECTIVE EVALUATION OF DISCOMFORT BY ASYMPTOMATIC WOMEN DURING ATTEMPTED ENDOMETRIAL IRRIGATION

Degree of Discomfort	*Women Reporting Number*	*(Percent)*	
None	45	(24%)	141 (74%)
Slight	96	(51%)	
Moderate	40	(21%)	49 (26%)
Severe	9	(5%)	

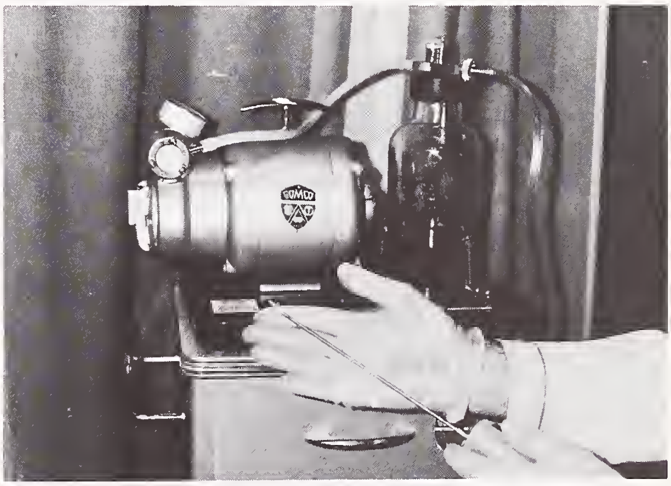

Figure 15
The sterile, disposable Vabra aspirator, which employs negative pressure created by a vacuum pump to return endometrial tissues to a collection reservoir, recovers large amounts of endometrial tissues suitable for histologic study.

Use of a negative pressure suction curettage, the Vibra® aspirator,[58-62] (Figure 15) has been reported as showing a high degree of accuracy in recovering histologically interpretable tissue for the diagnosis of endometrial cancer and hyperplasia in symptomatic patients.[59, 61] Indeed, the accuracy of this instrument in the diagnosis of hyperplasia in the few early reports exceeded that of the Gravlee Jet Washer (Table V). However, a recent report of Vibra® aspiration in a large number of patients indicated that the accuracies for the detection of endometrial hyperplasia and endometrial carcinoma were only 75% and did not fulfill the expectations of the earlier reports.[62] It is our experience that the Vibra® aspirator does recover extremely fine tissue for histologic diagnosis (Figure 16), but a theoretic advantage of the Gravlee washer in screening programs is that it may lavage the entire endometrial cavity to recover cells sufficient for cytologic diagnosis and thereby enhance the value of the irrigating technique. Furthermore, abnormal cytology recovered by endometrial irrigation may also predict the presence of extrauterine neoplasms.[47, 50, 53, 55]

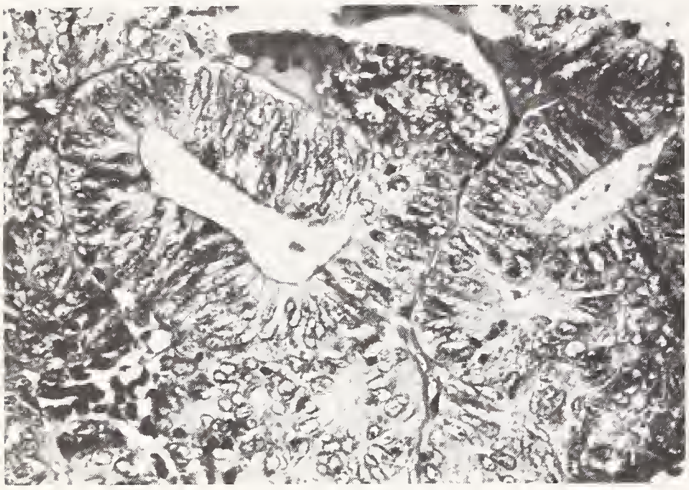

Figure 16
High power microscopic photograph of histologic preparation showing adenocarcinoma in tissue obtained by endometrial aspiration of a postmenopausal woman. Note the fine histologic detail of this characteristic endometrial adenocarcinoma.

Endometrial Screening Programs

Who should be screened? Certainly special effort toward the collection of endometrial cells by endocervical sampling is warranted in every patient in the perimenopausal or postmenopausal ages. This of course can be done with a saline moistened cotton tipped applicator or endocervical bulb aspirator. In a review of factors associated with endometrial cancer, MacMahon calls attention to a number of characteristics only a few of which could be definitely linked to an increased risk for developing endometrial cancer, and the absence of these factors certainly was not protective against the disease.[63] In a further effort to determine which patients to subject to intrauterine screening, we have looked at the characteristics of patients who were diagnosed as having endometrial carcinoma at the New Britain General Hospital between 1971 and 1975.[21] During this five year period, 115 women were treated for this disease. Only three of these patients were younger than forty years; the youngest patient was an extremely obese young woman of 26 years old who had a focal well differentiated adenocarcinoma associated with extensive atypical adenomatous hyperplasia. 8.7% of these women were in their forties and 88.7% were fifty years of age or older. 17.4% were premenopausal and 82.6% were postmenopausal. 41.8% weighed more than 150 lbs. and 36.5% had blood sugars of greater than 120 mg% on admission. Twenty-three of the 115 women had blood pressures with both systolic and diastolic elevations above 140/90. Eight of the patients gave a history of taking exogenous thyroid with or without proven hypothyroidism. The cervicovaginal Pap smear was abnormal for endometrial cells in only 6% of these 115 patients.

At the present time we recommend endometrial screening (Table VIII) of all patients beyond the age of forty who have a family history of endometrial cancer or personal history of another malignant neoplasm, especially of the breast in which several series have indicated an increased risk of developing endometrial cancer.[64-67] An association of endometrial cancer has also been shown with other gynecologic tumors and with cancer of the colon and the rectum,[35, 65-67] although the latter is such a prevalent disease that it may occur in no greater frequency than can be expected for the development of second primaries.[67] Nonetheless, the endometrial irrigation technique is sufficiently innocuous so that these screening efforts directed to the detection of early curable disease should be undertaken. Delayed menopause certainly is an indication for endometrial screening as is a past finding of endometrial hyperplasia.[4, 35] Patients who have infertility with long periods of anovulation and oligomenorrhea,[23, 35, 68] whether or not classically the Stein-Leventhal syndrome, should be considered for endometrial screening. There have been variable reports as to the association of high estrogen index on the vaginal Pap smear with endometrial cancer, but certainly this indication of a possible functioning ovarian tumor in the postmenopausal age should lead to further investigation. In our discussion we have seen how

Table VIII

CANDIDATES FOR ENDOMETRIAL SCREENING

- Family History of Endometrial Cancer
- Previous Neoplasm
  - gynecologic
  - rectum and colon
  - breast
- Delayed Menopause
- Endometrial Hyperplasia
- Stein-Leventhal
- Secondary Amenorrhea and Infertility
- High Estrogen Index
- Exogenous Estrogens
  - steroidal
  - nonsteroidal
- Obesity
- Diabetes Mellitus
- Hypothyroidism
- Exogenous Thyroid
- Hypertension
- Oral Contraceptives (?)
  - sequential estrogen - progesterone
  - combined estrogen - progesterone
- All women over 40 years of age

steroidal and nonsteroidal estrogens and oral contraceptives, especially sequential type preparations, have been associated with endometrial cancer in both young and postmenopausal women. Obesity has a strong correlation with an increased risk for endometrial cancer, but limiting screening to only patients who are obese would overlook many of the patients who develop endometrial cancer.[14, 21, 35, 63, 64, 68, 69] There have been reports in the literature of endometrial cancer in patients who were receiving exogenous thyroid whether or not they were being treated for proven hypothyroidism.[21, 69] Hypertension itself may not be a direct correlate of endometrial cancer but it is associated with obesity and diabetes both of which are correlated with an increased risk for endometrial cancer.[35, 63, 64, 68] This then brings us to the point as to whether all women over 40, or over 50, should be screened in view of an otherwise increasing life expectancy, rich diet, and environmental exposure to estrogens and other hormones through dietary intake, cosmetics, and drugs.

Final Comment

In summary, the data which are presently available are not sufficient to convince me to discontinue therapeutic use of exogenous estrogens, thus depriving women of their proven beneficial effects. I am convinced that menopause and aging alone, probably obesity, and perhaps some of the other factors discussed predispose to endometrial carcinoma, possibly on the basis of providing a prolonged persistent estrogen milieu. I believe that more rigorous effort should be devoted to the detection of this disease in its early highly curable stages. So while the causes of endometrial cancer have not yet been fully defined, all patients who may be at risk should be carefully followed.

Discussion

During the discussion period, questions were raised by the audience as to their variable experiences regarding the accuracy of endometrial irrigation techniques and the number of samples which had been rejected by some of the discussants' pathologists as being unsatisfactory. It was pointed out that satisfactory results with endometrial irrigation techniques depend on the development of expertise in endometrial cytology.[38, 42] When both cytologic and histologic evaluations of the irrigants are carried out by skilled pathologists, most specimens are satisfactory and false negative rates are very low.[42, 45, 49, 50, 70] Unfortunately, some pathologists are not sufficiently interested in endometrial cytology to develop the necessary expertise or to involve their laboratory in the processing methods which were outlined in this paper. Where these methods are not used, the false negative rate is significantly higher.[71]

There was some discussion of the protective effect against the development of endometrial cancer which might be afforded by the cyclic imposition of exogenous progesterone in postmenopausal patients who are on long-term treatment with estrogens. It should be pointed out once again that a causal relationship between the long-term cyclic use of exogenous estrogens for menopausal symptoms and endometrial cancer has not been established, although circumstantial evidence might reasonably lead to that conjecture. So not only must considerably more data be accumulated regarding this, but also we must look at the possible protective effects of progesterone, separately. This is a large order. Dr. Robert Greenblatt, who has vast and long experience in the use of exogenous estrogens in menopausal patients, has stated that he has never had a fatal endometrial cancer develop in one of his patients who were treated with cyclic estrogens followed by progesterone to induce withdrawal bleeding.[72] The large menopause clinic at Wilford Hall U.S. Air Force Medical Center has similarly noted protective effects with estrogen-progesterone cycles.[73] Incidentally, it is the Wilford Hall group which has shown a satisfactory reduction in menopausal hot flashes by the use of progesterone alone in women in whom estrogens were contraindicated or ineffective.[74] I believe that all women receiving exogenous hormones for menopausal symptoms should be followed very carefully with endometrial screening and supervision of their monthly self breast examinations.

The question of the effect of exogenous estrogens on the development of breast cancer was raised. We have known for years that ablation of estrogen-producing endocrine organs may have a favorable effect in the treatment of metastatic breast carcinoma in some premenopausal women. On the other hand, exogenous estrogens have been useful in treating breast cancers in other individuals. Although there has been an increase in the diagnosis of endometrial cancer over the past 20 years during which there has been a significant upsurge in the use of exogenous estrogens, the incidence of breast cancer appears to have remained unchanged.[1] Dr. Burch in Nashville reported no increase in breast cancer among over 700 women in his practice who were placed on estrogens following hysterectomy and oophorectomy.[75, 76] However, in view of the current prevalence of breast cancer which affects one out of every 15 to 20 American women, a marked increase or decrease in this disease would have to occur in women who have received estrogens in order to show a statistically significant causal or protective association with these medications.

In conclusion, I want to mention the possibility that an unopposed estrogen milieu may not be in itself the cause of endometrial carcinoma, but it may act as a cofactor or provide the hyperplastic endometrium in which neoplastic transformation may occur. Dieter Wagner et al[77] reported microspectrophotometric studies showing that all normal endometrium showed diploid or tetraploid distribution of the nuclear DNA, and all of the six adenocarcinomas which they examined were aneuploid. Two of the 10 adenomatous hyperplasias were aneuploid and the remainder were euploid. From this study one may speculate that at some point, malignant transformation may have occurred in 20% of the adenomatous hyperplasias before they were examined.

REFERENCES

1. Seidman H, Silverberg E and Holleb AI: Cancer statistics, 1976, A comparison of white and black populations, Ca - A Cancer J for Clinicians, 26:2-29, 1976
2. Data from the Connecticut State Tumor Registry, JT Flannery, Director, 1976
3. Cramer DW, Cutler SJ, and Christine B: Trends in the incidence of endometrial cancer in the United States, Gyn Oncol, 2:130-143, 1974
4. Gusberg SB and Frick HC, II: *Corscaden's Gynecologic Cancer,* Fourth Edition, Baltimore, The Williams and Wilkins Company, 1970
5. Vellios F: Endometrial hyperplasia and carcinoma *in situ,* Gyn Oncol, 2:152-161, 1974.
6. Speroff L, Glass RH, and Kase NG: *Clinical Gynecologic Endocrinology and Infertility,* Baltimore, The Williams and Wilkins Company, 1973.
7. Schindler AE, Ebert A, and Friedrich E: Conversion of androstenedione to estrone by human fat tissue, J Clin Endocrin Metab, 35:627-630, 1972.
8. MacDonald PC and Siiteri PK: Relationship between the extraglandular production of estrone and the occurrence of endometrial neoplasia, Gyn Oncol, 2:259-263, 1974.
9. Greenblatt RB, Oettinger M, and Bohler CS-S: Estrogen-androgen levels in aging men and women: Therapeutic considerations, J Amer Geriatric Soc, 24:173-178, 1976.
10. Greenblatt RB, Colle ML, and Mahesh VB: Ovarian and adrenal steroid production in the postmenopausal woman, Obst Gyn, 47:383-387, 1976.
11. Siiteri PK, Swartz B, and MacDonald PC: Estrogen receptors and the estrone hypothesis in relation to endometrial and breast cancers, Gyn Oncol, 2:228-238, 1974.
12. Tseng L and Gurpide E: Effect of estrone and progesterone on the nuclear uptake of estradiol by slices of human endometrium, Endocrin, 93:245-248, 1973.
13. Gurpide E and Tseng L: Factors controlling intracellular levels of estrogens in human endometrium, Gyn Oncol 2:221-227, 1974.
14. Rizullah TH, Tovell HMM, and Kelly WG: Production of estrone and fractional conversion of circulating androstendeione to estrone in women with endometrial carcinoma, J Clin Endocrin Metab, 40:1045-1056, 1975.
15. Dockerty MB and Mussey E: Malignant lesions of the uterus associated with estrogen producing ovarian tumors, Amer J Obst Gyn, 61:147-153, 1951.
16. Hertig AT: Endocrine ovarian-cancer relationships, Cancer, 10:838-841, 1957.
17. Greene JW: Feminizing mesenchymomas with associated endometrial cancer, Amer J Obst Gyn, 74:31-41, 1957.
18. Kistner RW: Effects on progestational agents on hyperplasia in *Gynecological Oncology, A Comprehensive Review and Evaluation,* Barber HRK and Graber EA (eds.), Baltimore, The Williams and Wilkins Company, pp. 141-155.
19. Kaufman RH, Abbott JP, and Wall JA: Endometrium before and after wedge resection of the ovaries in Stein-Leventhal syndrome*, Amer J Obst Gyn, 77:1271-1285, 1959.
20. Hertig AT and Sommers SC: Genesis of endometrial cancer; Study of prior biopsies, Cancer, 2:946-956, 1949.
21. Kennedy AW, Casey MJ, and McLucas E, unpublished data, 1976.
22. Dockerty MB, Lovelady SB and Foust GT, Jr., Carcinoma of the corpus uteri in young women, Amer J Obst Gyn, 61: 966-981, 1951.
23. Aksel S, Wentz AC and Jones GS: Anovulatory infertility associated with adenocarcinoma and adenomatous hyperplasia of the endometrium, Obst Gyn 118:386-391, 1974.
24. Vermeulen A: Hormonal activity of the postmenopausal ovary, J Clin Endocrin Metab, 42:247-253, 1976.
25. Lan NC and Katzenellenbogen BS: Temporal relationships between hormone receptor binding and biological responses in the uterus: Studies with short- and long-acting derivatives of estriol, Endocrin, 98:220-227, 1976.
26. Silverberg SG and Makowski EL: Endometrial carcinoma in young women taking oral contraceptive agents, Obst Gyn, 46:503-506, 1975.
27. Lyon FA: Development of adenocarcinoma of the endometrium in young women receiving long-term sequential oral contraception, Amer J Obst Gyn, 123:299-301, 1975.
28. Kelley HW, Miles PA, Buster JE and Scragg WH: Adenocarcinoma of the endometrium in women taking oral contraceptives, Obst Gyn, 47:200-202, 1976.
29. Cutler BS, Forbes AP, Ingersoll FM and Scully RE: Endometrial carcinoma after stilbestrol therapy in goandal dysgenesis, NEJM 287:628-631, 1972.
30. Wilkinson EJ, Friedrich EG, Mattingly RF, Rgeali JA and Garancis JG: Turner's syndrome with adenocarcinoma and stilbestrol therapy, Obst Gyn, 42:192-200, 1973.
31. Smith DC, Prentice R, Thompson DJ and Herman WL: Association of exogenous estrogen and endometrial carcinoma, NEJM, 293:1164-1167, 1975.
32. Ziel HK and Finkle WD: Increased risk of endometrial carcinoma among users of conjugated estrogens, ibid, pp. 1167-1170.
33. Reagan JW: Changing nature of endometrial cancer, Gyn Oncol, 2:144-151, 1974.
34. Ng ABP, Reagan JW, Storaasli JP and Wentz WB: Mixed adenosquamous carcinoma of the endometrium, Amer J Clin Path, 59:765-781, 1973.
35. Frick HC, II, Munnell EW, Richart RM, Berger AP and Lawry MF: Carcinoma of the endometrium, Amer J Obst Gyn, 115:663-676, 1973.
36. Casey MJ and Madden TJ: unpublished data, 1976.
37. Ng ABP, Reagan JW, Hawliczek S and Wentz WB: Significance of endometrial carcinoma and its precursors, Acta Cytol, 18:356-361, 1974.
38. Ng ABP: Cellular detection of endometrial carcinoma and its precursors, Gyn Oncol, 2:162-179, 1974.
39. Gravlee LC, Jr.: Gravlee Jet Washer: Detection of adenocarcinoma of the endometrium, *Progress in Gynecology,* Volume VI, Taymor ML and Green TH, Jr., (eds), New York, Grune and Stratton, Inc., 1975, pp. 185-202.
40. Dowling EA, Gravlee LC and Hutchins KE: New technique for the detection of adenocarcinoma of the endometrium, Acta Cytol, 13:496-501, 1969.
41. Gravlee LC, Jr.: Jet-irrigation method for the diagnosis of endometrial adenocarcimona, Its principle and accuracy, Obst Gyn, 34:168-173, 1969.

42. Casey MJ and Madden TJ: Experience with endometrial irrigations in menopausal women, *Consensus on Menopause Research, Proc. Internat. Congress on the Menopause,* vanKeep PA, Greenblatt RB and Albeaux-Fernat M (eds.), Lancaster, MTP Press Limited, 1976, pp. 139-151.

43. Casey MJ, Kiertisak P and Madden TJ: unpublished data, 1972.

44. Abate SD, Edwards CL and Vellios F: Comparative study of the endometrial jet washing technique and endometrial biopsy, Amer J Clin Path, 58:118-122, 1972.

45. Bibbo M, Shanklin DR and Weid GL: Endometrial cytology on jet wash material, J. Reprod Med, 8:90-96, 1972.

46. DePetrillo AD, SiSaia PJ, Morrow CP and Townsend DE, Gravlee jet washer* effectiveness as performed by obstetric/gynecologic paramedical personnel, Amer J Obst Gyn, 117: 371-374, 1973.

47. Erozen YS, Parmley TH, Howdon A and Woodruff JD: Evaluation of abnormal vaginal bleeding with the Gravlee jet washer, Gyn Oncol, 3:289-297, 1975.

48. Hibbard LT and Schwinn CE: Diagnosis of endometrial jet washings, Amer J Obst Gyn, 111:1039-1042, 1971.

49. Kanbour A, Klionsky B and Cooper R: Cytohistologic diagnosis of uterine jet wash preparations, Acta Cytol, 18:51-58, 1974.

50. Lukeman JM: Evaluation of the negative pressure "jet washing" of the endometrium in menopausal and postmenopausal patients, ibid, pp. 462-471, 1974.

51. Rodriques AM, Rubin A, Koss LG and Harris J: Evaluation of endometrial jet wash technique (Gravlee) in 303 patients in a community hospital, Obst Gyn, 43:392-399, 1974.

52. Smith JP, Ehrlich CE and Lukeman JM: Detection of endometrial adenocarcinoma using a jet washer, ibid., pp. 522-526, 1974.

53. So-Bosita JL, Lebhertz TB and Blair OM: Endometrial jet washer, ibid., 36:287-293, 1970.

54. Underwood PB, Kellett MP, McKee EE and Clark A, Gravlee jet washer: Can it replace the diagnostic curettage? Amer J Obst Gyn, 117:201-209, 1973.

55. Vassilakos P, Wyss R, Wenger D and Riotton G: Endometrial cytohistology by aspiration technique and by the Gravlee Jet Washer, Obst Gyn, 45:320-324, 1975.

56. White AJ, Buchsbaum HJ and Rodman NF: Accuracy of the Gravlee Jet Washer in detecting endometrial adenocarcinoma, Amer J Obst Gyn, 116:1169-1170, 1973.

57. Casey MJ and Madden TJ: Endometrial screening of asymptomatic women by irrigation technique in the private gynecology office, J Amer Geriatric Soc, 25:118-124, 1977.

58. Bjerre BA, Gardmark SA and Sjobërg N-OJA: Aspiration curettage—a new diagnostic method, J Reprod Med, 7:221-223, 1971.

59. Cohen CJ, Gusberg SB and Koffler D: Histologic screening for endometrial cancer, Gyn Oncol, 2:279-286, 1974.

60. Denis R, Jr., Barnett JM and Forbes SE: Diagnostic suction curettage, Obst Gyn, 42:301-303, 1973.

61. Jensen JG: Vacuum curettage, out-patient curettage without anesthesia, A report of 350 cases, Danish Med Bull, 17:199-202, 1970.

62. Liu DTY, Melville HAH, Measday B and Melcher D: Assessment of diagnostic aspiration curettage as an out-patient procedure, Amer J Obst Gyn, 122:106-108, 1975.

63. MacMahon B: Risk factors for endometrial cancer, Gyn Oncol, 2:122-129, 1974.

64. Lynch HT, Krush AJ, Larsen AL and Magnuson CW: Endometrial carcinoma: Multiple primary malignancies, constitutional factors and heredity, Amer J Med Sci, 252:381-390, 1966.

65. Schoenberg BS, Greenberg RA, and Eisenberg H: Occurrence of certain multiple primary cancers in females, J Nat Cancer Inst, 43:15-32, 1969.

66. Vongtama V, Kurohara SS, Badib AO and Webster JH: Second primary cancers of endometrial carcinoma, Cancer, 26:842-846, 1970.

67. Schottenfeld D and Berg J: Incidence of multiple primary cancers. IV. Cancers of the female breast and genital organs, J Nat Cancer Inst, 46:161-170, 1971.

68. vanNagell JR, Roddick JW and Wallace JO: Clinical correlates of endometrial carcinoma, Amer J Obst Gyn, 112:935-937, 1972.

69. Geisler HE, Huber CP and Rogers AB: Carcinoma of the endometrium in premenopausal women, Amer J Obst Gyn, 104:657-663, 1969.

70. Henderson SR, Roxburgh DR, Bobrow LG, Pollard SM and Greening SE: Endometrial washings: Histological and cytological assessment of material obtained with an intrauterine jet washing device, Brit J Obst Gyn, 82:976-986, 1975.

71. Afonso JF: Value of the Gravlee jet washer in the diagnosis of endometrial cancer, Obst Gyn, 46:141-146, 1975.

72. Greenblatt RB, personal communication, 1976.

73. Gambrell RD, Jr., personal communication, 1976.

74. Bullock JL, Massey FM and Gambrell RD: Use of medroxyprogesterone acetate to prevent menopausal symptoms, Obst Gyn, 46:165-168, 1975.

75. Burch JC and Byrd BF, Jr.: Effects on long-term administration on the occurrence of mammary cancer in women, Ann Surg, 174:414-418, 1971.

76. Burch JC, Byrd BF, Jr., and Vaughn WK: Effects on long-term estrogen on hysterectomized women, Amer J Obst Gyn, 118:778-782, 1974.

77. Wagner D, Richart RM and Terner JY: Deoxyribonucleic acid content of presumed precursors of endometrial carcinoma, Cancer, 20:2067-2077, 1967.

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The Federal Trade Commission and Health
A Chronology: 1975—1976

Introduction: Almost all actions taken by the FTC in health-related fields have occurred since mid-1975. Prior to that period investigations concentrated on alleged anti-competitive business practices in the pharmaceutical industry. This chronology provides an indication of the new scope and pace of FTC initiatives. It concentrates on publicly announced actions, but includes nonpublic actions as well. However, the list is not exhaustive because the FTC is conducting nonpublic reviews and investigations for which we have no information. Several items listed refer to the same investigation. Bear the following in mind when reviewing this chronology:

(a) The existence of an investigation does not imply guilt for any party.

(b) All investigations are secret, although public comments are requested when a public announcement of an investigation is made.

(c) Consent agreements are for settlement purposes and do not constitute a legal admission of guilt. They carry the force of law with respect to future actions and civil penalties can be imposed if they are violated.

1975

June: Advertising prescription drug prices. FTC proposed a rule allowing pharmacies to advertise retail prices for prescription drugs. Now formally suspended pending FTC assessment of May 1976 Supreme Court decision from Virginia which, according to FTC staff, granted substantially what the agency proposed in its rule. Proposed rule may therefore be dropped.

July: Cephalosporin marketing (nonpublic). A preliminary investigation to determine whether FTC and Clayton Act violations occurred in development and marketing of a widely-used antibiotic. Eli Lilly and Company named in leaked report; FTC subpoenas now being litigated.

October: Advertising prescription drug prices. FTC announced public hearings in three cities on a proposed trade regulation rule on disclosure regulations concerning prices for prescription drugs.

November: Deceptive advertising for OTC drugs. FTC proposes a trade regulation rule for over-the-counter (OTC) drugs prohibiting the making of any product claims in advertising which the FDA prohibited in labeling under its over-the-counter drug review program. The Commission believes that the advertising of a drug that the FDA has determined unsafe is a deceptive and unfair practice.

December: Advertising physician services. A complaint that the AMA has illegally restrained competition among medical doctors was issued alleging that individual physician members are prevented from advertising the types and prices of services to the public. (See below.)

December: Advertising eyeglasses. A trade regulation rule to permit advertisements dealing with the price and availability of prescription eyeglasses was proposed. The rule is intended to allow sellers and providers of ophthalmic goods and services to disseminate accurate information regarding the price and availability of prescription eye wear. (See below.)

No date: Health maintenance organizations (nonpublic). A recent, but continuing economic investigation to determine if there are existing professional or other practices which impede the development of HMOs as an alternative form of service delivery. The Blue Shield consent order in Spokane, Washington, noted below, results from this investigation.

1976

January: Competition in eye services. FTC authorizes investigation into providers and sellers of ophthalmic goods and services to determine whether there is a violation of FTC Act. Concerned with certain alleged practices in prescription eyeglass industry which may restrain trade, e.g. limitations on the number of branch offices an industry member may own or

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operate; prohibitions on the employment of optometrists or opticians by retailers; etc.

January: Advertising eyeglasses. Releases staff report on alleged restrictive practices regarding eyeglass advertising, especially restrictive state laws and prohibitions by private professional associations on eyeglass prices. Proposes trade regulation rule that would permit advertising by sellers and providers of ophthalmic goods and services.

February: Advertising physician services. A prehearing conference (public allowed to attend) was held on the findings of the FTC that certain practices of the AMA, especially regarding the alleged restrictive effects of professional codes of ethics, were in violation of the FTC Act by limiting competition. Trial before an administrative law judge is now set for June 6, 1977. Both sides now engaged in pre-trial discovery.

February: Physician fee steeing (Blue Shield). FTC announces investigation into individual and National Association of Blue Shield Plans to determine whether Blue Shield-physician relationship has an unfair effect on competition, e.g. establishment of fee levels. Investigation expected to end in 1977. Possible results could theoretically include dropping inquiry because there is no "reason to believe" a violation of FTC statutes exists; or issuance of a proposed trade rule; staff report; report to Congress; or litigation.

April: Advertising eye services. Public hearings announced for summer in five cities; on proposed trade regulation rule concerned with ophthalmic goods and services. (See below.)

April: AMA manpower investigation. FTC announces investigation to determine whether AMA has illegally restrained supply of physicians and health care services through activities related to accreditation of medical schools and graduate programs; definitions of fields of practice for physicians and allied health care personnel; limitations on forms of delivery inconsistent with fee-for-service mode.

May: Drug firm merger. Rules that the acquisition by Warner-Lambert of Parke, Davis Co., two large pharmaceutical manufacturers, substantially lessened competition in several specific drug markets and was in violation of the Clayton Act.

July: Relative value scales: Accepted a consent order agreement, now final, from two specialty societies which agree to stop using relative value scales as guides for pricing professional services. The societies were the American Academy of Orthopaedic Surgeons and the American College of Obstetricians and Gynecologists (ACOG). These are the first corrective steps taken by the FTC in its current health care program, and the first actions taken by the agency against relative value scales. The agreements resulted from a staff complaint that the societies had prepared, published, and circulated scales that had the effect of establishing, maintaining or otherwise influencing fees charged by their members.

July: JCAH and psychologists (nonpublic). In response to a written complaint from the Association for the Advancement of Psychology, the lobbying arm of the profession, a preliminary investigation is started. The private complaint alleges that the Joint Commission on Accreditation of Hospitals and its constituent groups engage in unfair competitive practices in violation of section 5 of the FTC Act by denying accreditation to hospitals which allow psychologists to have staff privileges.

July: Dental labs (nonpublic). The San Francisco regional office initiates an investigation of state laws or regulations which prevent dental labs from selling dentures directly to the public. The intention is to determine whether these rules, which require sales to be made only through licensed dentists, unfairly impede competition.

July: Egg advertising. A cease and desist order is issued against the National Committee on Egg Nutrition, an egg producers' association, to stop deceptively advertising that "there is no evidence that eating eggs, even in quantity, increases the risk of heart attack."

August: Multiple source drugs. FTC authorizes investigation into prescription drug practices to determine whether consumers are subject to unfair or deceptive acts where prescription drugs can be filled from several sources, but are not so filled because of existing state law or private action. The FTC states that about 40% of all prescriptions, or $3 billion worth, are for drugs manufactured by more than one company. Its inquiry will concentrate on whether pharmacists should be free, if the physician does not object, to selecting the least expensive drug prescribed for a patient; whether and to what extent consumers would save if doctors delegated more authority to pharmacists to select drug sources; whether price competition is unfairly impeded in this area because of state law or private action.

September: Advertising eye services. Additional hearings in Washington announced for two special witnesses to present studies. Hearing record now closed and under review.

September: HMO-physician group consent order. A consent order is accepted wherein a Blue Shield organization in Spokane, Washington, and its participating physician group agree to stop alleged boycotting of HMO physicians and patients. The order prohibits exclusion of any lawfully practicing physician from being a participating physician in the Blue Shield Plan, and discrimination against physicians because they participate in an HMO or practice on anything other than a fee-for-service basis.

September: Hearing aid competition. An administrative law judge ruled in an initial decision that one of the nation's leading hearing aid manufacturers, Beltone Electronics Corp., was restraining competition in the distribution of its product. The initial order would prohibit the alleged acts.

October: Advertising OTC drugs. FTC announced a public hearing for January 10, 1977, on a proposed trade regulation rule concerning advertising of over-the-counter drugs.

October: Drug merger. FTC issues final orders requiring partial divestiture of Warner-Lambert and Parke, Davis Co. assets because of anti-competitive merger. Several alleged violations not proved.

November: Accreditation protest. As result of AMA manpower investigation (above), FTC Bureau of Competition files letter with U.S. Office of Education stating that the Liaison Committee on Medical Education "should be denied" recognition as the voluntary agency to accredit medical schools because of an alleged conflict of interest established by the relationship between the Committee and the AMA. O.E. review postponed until March 22, 1977.

November: Relative value scales. The FTC announced acceptance of a consent order prohibiting the American College of Radiology from using relative value scales. The order remains open for public comment until January 17, 1977. The order was based on a staff report and complaint which alleged that ACR scales set forth comparative values for surgical and medical procedures and services on nonmonetary units, but were convertible to a monetary fee by application of a dollar conversion factor. The staff report published by the FTC as the basis of the order claimed that the use of scales froze the relationship of different fees for different procedures even where individual professionals applied their own dollar factors to each relative scale.

Investigations of same subject continue in California and Minnesota state medical societies.

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The Future of General Medical Care

WALSH McDERMOTT, M.D.

I have a title today about the future, but it would be a gross conceit on my part to attempt to predict the future. My experience as a futurologist is basically that what you do is look at what is already around you and make judgments as to its likelihood of surviving. Within the fields of our interest there are emerging issues and trends which I can try to characterize and perhaps identify where alternative courses of action might still be open for us.

At the start I might say that I am entirely in favor of abandoning the term primary care. In preparation for this occasion, I took the opportunity to try to find definitions for primary care and have found a spectrum of definitions ranging all the way from triage by a nurse practitioner to the activities with inpatients carried on by board certified obstetricians. If this were merely a question of semantics, one would not bother about it, but unfortunately, the fuzziness on the words and the concepts is leading to a fuzziness on the actual programs and actions that are deriving therefrom. People are finding themselves supporting things in the name of what they think is primary care only to discover that they really didn't mean to be doing that at all. So that what my understanding of what we are talking about these days is general medical care on a continuing basis. But of all these definitions one theme runs through, namely, that today's issues largely have to do with ambulatory care. As the whole subject of medical care, both ambulatory and hospital care, has become an issue of public policy, there is increasing emphasis on the point that there should be universal access to some form of general medical care—primary care, if you will.

Let us examine some of the things that are involved in that proposition. We are a nation of 214 million people with 295 thousand physicians taking care of patients. There are a lot of other drones like myself, but there are 295 thousand physicians that are actually doing the Lord's work. According to the statistics 80 percent of 295 thousand are specialists, and 20 percent are not. This has given rise to one of the positions in the primary care debate; in fact, it is the position held by the Congressional committees that have drafted the manpower legislation. The position is that there are too many specialists, that there should be far more generalists, and that the way to do it is to limit entrance to the specialties. This entrance to the specialties should be sharply reduced so that we might, therefore, end up with a much larger number of generalists. There is a problem here, however, which has not yet been recognized; it is one I call the expertise/access problem, that is, that if you are to have access to a system for everybody in the country, that is universal access, you have to have some sort of an *assignment* process. That is, the person has to be assigned to a doctor or a facility, and a facility has to be assigned to the person. The person has to be able to say, "I am Dr. Jones' patient." And Dr. Jones, if queried, has to say, "Mrs. Smith is indeed my patient." There has to be such an assignment process. Now we are talking, of course, of a population as a whole, not of a single group of patients. The number of people in a population that would produce enough activity for a physician to be wholly busy is actually the number that will produce enough illness so that it can be handled by him on a personal encounter basis each day. That is, a physician can only have so many personal encounters each day, and that forms a ceiling, and you can figure out, if you know the demographic profile of your people, i.e., how many are infants and how many are old folks, you can figure out approximately how many people you need. The figure comes out somewhere around 2,500 to 4,000. That is, if you are dealing with a population at large, 2,500 to 4,000 of the U.S. demographic profile will produce enough illness to keep a doctor plenty busy, but it will not produce anywhere near enough to challenge his

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expertise. So that from one year to another he will not have much of an opportunity to keep intellectually sharp, and thus he will not be able to do the most important thing of all, namely, to be able to identify from innocent appearing situations the very few that are terribly important and see that they are properly managed. So that if you want access, you have to have assignment. If you have assignment, you have great trouble preserving expertise. There is no obvious way to keep the expertise alive, and you have to ask the doctor to behave like an auxillary generator and tick over year in and year out with the hope that come the power failure, in his case the tricky but critical clinical problem, everything will be all right.

Many of you may say that he is playing with numbers here and that "that isn't the way it is in my life at all." I am working from morning to night, and my expertise is challenged plenty. In fact, I would just as soon it wasn't being challenged quite so much." Of course, that is true of you. But you are not dealing with an assignment to a defined population. You are dealing with what I call a constituency; that is, a collection of people who have voted with their feet in one way or another to come to you. They have decided for one reason or another that they need medical care. They either have self-diagnosed an illness, self-referred themselves, somebody has sent them—there are very many ways, as we all know. For some reason or another a decision has been made. They have been screened from this larger population, the 2,500 to 4,000 who are more well than sick on any one day. You deal with a centrifugate of people who are for one reason or another much more apt to be in need of discerning care and produce much more of a challenge to the expertise. This is fine as far as it goes; the trouble is that by no means everyone has a doctor "connection" such as your patients have to you.

To return to the "too many specialists" issue, the overlooked factor is what I call the hidden system of primary care. That is that anybody who looks at the U.S. medical care system and is under the impression that all of the general care is given by the 20,000 nonspecialists and that the other 80,000 specialists are sitting there being specialists obviously doesn't know exactly what is going on. Because of the characteristic pattern for most specialties, and there is a variation here among the specialties, as we all know, but by and large every specialist in America gives a considerable amount of general medical care. He or she has a group of people known as "my patients," and for "my patients" the doctor, and this is true of surgeons as well as nonsurgeons, does a considerable amount of medical activity that would fall under the classification of general medical care. Much of the time they do it because they like being a doctor, and they like the patient. Some of the time they do it because it is quicker to solve the patient's problem than to go through the trouble of transferring it to somebody else; some of the time they do it because in their hearts they know that some of the specialty borderlines are pretty artificial and rather ridiculous, and it makes little sense to add one more referral to the patient's troubles. Whatever the reason, it is highly probable that the major portion of the general medical care in America is rendered by people who hold a certificate that says they are a specialist in something.

The problem here, as stated a moment ago, is access to this system, this hidden system of general medical care. How do you get people into it. We all know the problems. We call up and try to get an appointment with somebody with a nonemergent situation, and the office nurse says the doctor can see our patient a week from Tuesday. There is a contradiction here. If the doctor is going to run a drop-in office, he is not going to spend very much time on any one patient. If he *is* going to spend time on any one patient, you can't have access to him because it is going to be ten days away. So you have this type of contradiction in the hidden system. You also have the problem that to some extent the patient is in there on a whim or paid his dues to get in there. That is, to say the patient got in the hidden system, you are in there because he gave up his gall bladder. Having done that, he now has a doctor whom he loves, and the doctor loves him and takes care of his problems pretty well. But almost on a whim somday when confronted with a general care question, the doctor is apt to say, "Well you know I don't handle that kind of problem. Why don't you see Dr. Jones." Then the patient is out in the cold again and must start over. So it is a disorganized system, but for those lucky enough to find their way into it, it provides a tremendous amount of highly personalized, first-class general care.

Another pitfall in looking at this specialist/generalist issue on the "macro" data showing how few are the nonspecialists is the fact that in our country the term specialist has a double meaning. The first meaning we have for specialist is someone who has completed the requirements of the specialty board in a particular knowledge sector and by passing examinations becomes a specialist. The other meaning of specialist is someone who sees only those patients referred to him by another doctor. In the first meaning the term specialist is used to indicate the level of quality. We are told the physician has met certain standards, but we are told really nothing about his professional activities. The second meaning tells you a great deal about professional activities. We have both kinds of specialists—I call them type I and type II—in the U.S. Some of our specialists, for example, ophthalmologists or cardiac surgeons, are clearly type II; they would deal only with patients referred by another physician. But there are relatively few in this category, and most of our specialists are type I. By this I mean there is no feeling that just because one has passed the examinations of the American Board of Internal Medicine, one refuses to see patients unless they have been referred by another doctor. One sees patients as first contact, as self-referral, or any other kind of a way. This gives rise to problems to people who do not understand medicine from the inside but who are dealing in health planning, such as economists. Accustomed to aggregating data in macro-economics, to them specialists are specialists. A specialist is someone who is not a generalist by definition and is someone who presumably sits there and has patients referred to him. In the British system, of course, a specialist is just that, namely, a doctor who generally sees only patients referred by someone else, i.e., a true consultant.

Because of this double meaning of the term medical specialist in the U.S. and the widespread but hidden system of general medical care, any campaigns to improve our medical care situation by altering the ratio of generalist to specialist are founded on quite uncertain grounds.

The type II, consultant types such as the ophthalmologists and cardiac surgeons, represent an unknown portion of the U.S. doctors listed as specialists. We know, for example, how many pediatricians and internists there are but not how many actually function in their daily lives as general care physicians. Presumably many of them do, and now we also have the board certified family practitioners. These would all be people who have met the criteria of examining boards and for whom the term specialist just indicates the level of training. We do not actually know how much of the medical care is given by this group, but it is presumably substantial.

By having these specialists (type I) deliver general medical care, we handle the loss of the expertise problem; that is, the person is constantly renewing their knowledge; they are connected with a hospital; they are working on their specialty that keeps them constantly renewed. So we handle the expertise problem by using the specialist/generalist combination doctor, but we lose the universal access derived from assignment. If we go for the access, we lose the opportunity to keep the expertise going. So there then is a major dilemma which we face if we are attempting to do as every statement of our national public policy says, provide access to a system of general medical care for the American people.

There have been a number of ways suggested as to how that might actually be done. We are all familiar with them. Most of them involve some sort of a transfer of a function, that is, things that were formerly done by a physician are now done by a nurse practitioner or by a physician's assistant or some form of new health personnel. Some suggestions are that we train two types of physicians, a poor one and a good one. My characterization, "poor" and "good," may not be quite right for what we would have would actually be a quickly trained doctor and a more lengthily trained one. But to use poor and good again, I think when we reflect, we all realize that almost all the time all you need is a poor physician, and for most people all your life all you need is a poor physician. I can remember my father, who graduated in medicine in this state in the 19th century, telling me this fact. My father was a man very similar to the doctor in *The Last Angry Man,* the novel by Gerald Greene, and like the book's hero my father was mad most of the time. Mad at his patients, mad at the hospital—he was just mad all the time. Now I can see, of course, why he was mad. He was practicing in the era when medicine was coming out of dogmatism and rapidly obtaining a science base. He tolerated fools badly, and he considered all too many of his professional associates to be in that category. I would say to him, "What is so wrong with Dr. so and so? He is very successful, and he seems to be a nice person." My father would then proceed to tick off for me a whole life of a family almost in Shakespearean terms, that is, how they were born and what they had, how they got the measles, etc. He would show to me that it was perfectly possible to handle a family from cradle to grave without ever once encountering any kind of a real problem and that if one had a nice smile and a nice ingratiating manner, it would be the simplest thing in the world to build up a great reputation that way. This was something that I thus learned early on, namely, that most of the time you don't need anything but a poor physician.

The trouble is there is absolutely no way of telling in a particular situation whether what you need is a good or poor physician except the judgment of another good physician. That is absolutely the only way there is to distinguish between the two types of situations. How to solve this problem keeps cropping up in all these proposed ways of turning out "three-year wonder" physicians. That is to say, suggested plans whereby we go in for a double system in which much of the care is delivered by one kind of doctor and a certain specialized type of care is delivered by the other. I am making this point not to give you in any sense of the word an idea that I am taking a general position against allied health personnel. On the contrary, I think all of us have had very fine experiences in training and employing and in working collaboratively with people who do not have M.D. degrees but have had certain special training. I simply wish to show that again, if one is thinking in terms of health planning, if you tell an economist-oriented health planner that most of the time all you need is a poor physician, then that is what you will get. The truth requires a bit more interpretation.

A year or so ago I had the assignment of looking over the general medical care question and attempting to isolate what were feasible approaches, not what were abstractions that one could dream up, but what really were possible ways of spreading a satisfactory system of general medical care throughout our country. I will not drone off for you the twelve feasible approaches I listed because that is a pretty long litany, but I will do two things more or less together: one, I shall isolate certain individual elements of the total scene that are popping up right now that are relevant, and two, I shall present two or three approaches that seem to me to be the most likely to happen among all the possible approaches.

At the outset there are certain features of today's scene that have to be listed. First of all, I am thoroughly convinced that there will be no single system for the delivery of medical care for our country. This country is too diverse, the problems in our areas of low density are too different from those in our areas of highest density, and those two sets in turn are quite different from the problems in most of the country where there is a moderate density of population. So that no single system is going to work. Whatever evolves is going to have to contain two or three or four different ways of doing things. Second, I can foresee no *nationalized* system at all in the foreseeable future. By this I mean that the profession itself would be taken over by the government and nationalized like the railroads in wartime. I say that for us, and for the middle-term future, but ultimately such a nationalization could happen if some of the present problems could not be solved. But certainly there is no immediate—by immediate I mean a five- to ten-year—kind of look that would in any way make one believe nationalization to be at all likely. The private sector still exercises the major responsibility for running our health care system, and it would be utter madness of an administrative sort, despite whatever one's political ideology might be, it would be utter madness to try to nationalize the system just like that. But it could happen in the long run if we are unable to solve some of our problems, notably our two major ones—access and costs.

Third, my bet is that we are not going to see any system of overall, i.e., comprehensive, national health insurance for a good long time. I am talking about a medicare for all ages. I realize I am saying this despite the fact that both presidential candidates have said the opposite, and both of them are saying we are going to have a system of national comprehensive health insurance. Somehow I just do not believe it. I do not believe it because of the fact that we did not put cost controls on, assuming we could have figured out how to do it, when medicare/medicaid was started. The inflationary effects have been fantastic, and in New York City now it is necessary to calculate $200 to $250 a day for a hospital bed. I do not think any responsible person faced with pulling a lever that would turn on national comprehensive medical insurance would do so when faced with the record on cost control we have at this moment. It simply isn't going to happen. Now as both presidential candidates have promised us that it will happen, whoever wins will have to keep at least a piece of the promise. Thus there will be some form of *partial* national health insurance which can be pointed to as the first step toward. The most likely, I think, would be the Scheuer-Javits Bill type activity. This program is essentially the same thing that Wilbur Cohen was pushing under the name of "kiddie kare." It is an insurance program for mothers and children; in other words, it would be a medicare for infants and children and through pregnancy for the mothers. I believe a program of this type is very apt to become a reality during the next presidential term.

My fourth point is that we will see quite a move toward regionalization. Regionalization, as we know the concept, is that one can maximize facilities by getting together within geographic regions and in that way keep down costs and, from a scientific and professional standpoint, probably present better service. The trouble with regionalization is that just like the phrase, "primary care," the term has become a great slogan which is becoming all things to all man. People will show you how they are regionalizing, whereas, in fact, they are simply building stronger bases under their own individual positions so they won't have to give an inch in case there is anything involved in cooperative activity. At the Foundation we have spent a considerable time looking at these things, and my own feeling is that there are certain things that can be regionalized and certain things that probably cannot. It is terribly important not to draw with colored crayon on flat maps on a wall and say here is a region, and here is a region, when it turns out if you only knew it that all the people from A go to B no matter what you do and will not go to C also no matter what you do for this has been going on since the beginning of time. To regionalize is really quite a trick; thus far it is something that has place around tables in many task force study rooms but has not taken place many places elsewhere. The Robert Wood Johnson Foundation has supported two regionalized programs and is studying the possibility of a few more. The first one was a national competitive program on emergency communications networks. In this program certain communities have put everything together in 911 telephone arrangement linking the fire department, the police department, the ambulance service, and the emergency ward. As you know, in most emergency rooms around America, when patients arrive after a major tragedy, it comes as an enormous surprise to the emergency room, although a lot of other people will have known for an hour or more that some terrible catastrophe has taken place. Another regionalized program we have is with perinatal care. The evidence is

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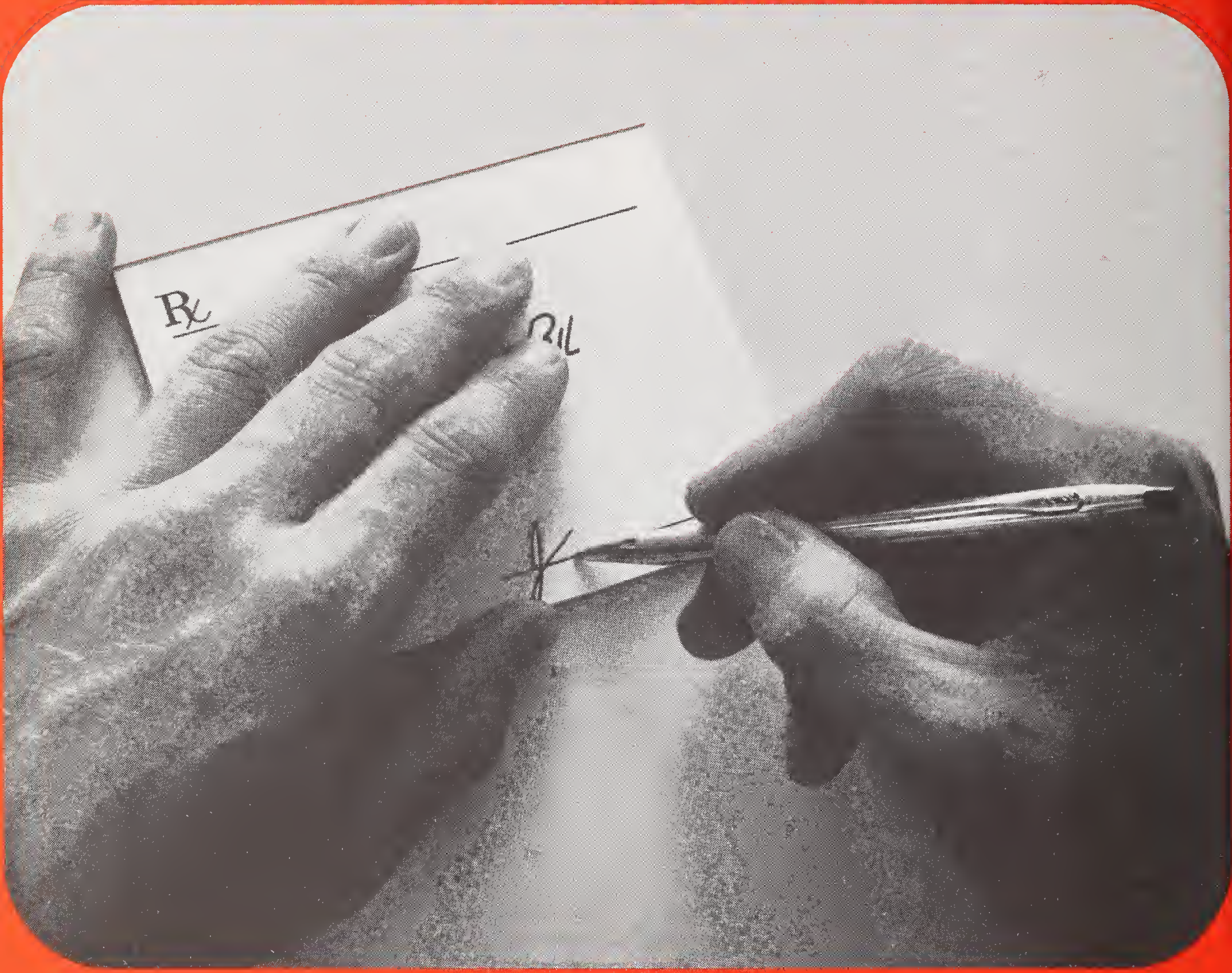

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Warnings: Use with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. Cumulative effects may develop in patients with impaired renal function. Use with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma. May add to or potentiate action of other antihypertensive drugs; potentiation occurs with ganglionic or peripheral adrenergic blocking drugs. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possibility of exacerbation or activation of systemic lupus erythematosus has been reported. Lithium generally should not be given with diuretics because they reduce its renal clearance and add a high risk of lithium toxicity. Read circulars for lithium preparations before use of such concomitant therapy.
Use in Pregnancy: Thiazides cross placental barrier and appear in cord blood; in pregnancy, weigh anticipated benefit against possible hazards to fetus, including fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions that have occurred in adults.
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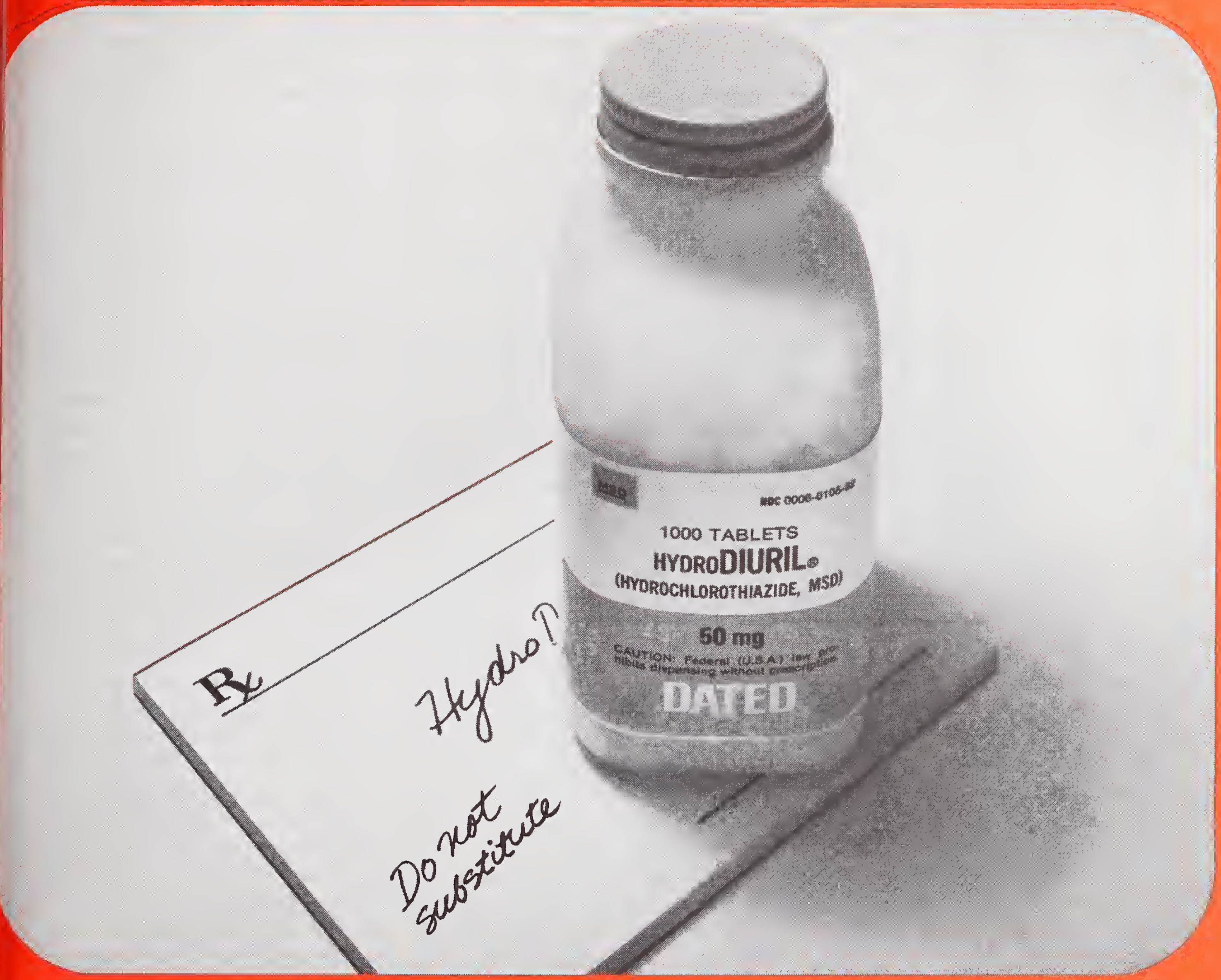
Precautions: Perform periodic determination of serum electrolytes to detect possible electrolyte imbalance. Observe all patients for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause, are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting. Hypokalemia may develop, especially with brisk diuresis, in severe cirrhosis, with concomitant corticosteroid or ACTH therapy, or with inadequate oral electrolyte intake. Hypokalemia can sensitize or exaggerate response of heart to toxic effects of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content. Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver disease or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt except in rare instances when the hyponatremia is life threatening. In actual salt depletion, appropriate replacement is the therapy of choice.
Hyperuricemia may occur or frank gout may be precipitated in certain patients. Insulin requirements in diabetic patients may be increased, decreased, or unchanged; latent diabetes mellitus may become manifest. Thiazides may increase responsiveness to tubocurarine. Antihypertensive effects of the drug may be enhanced in postsympathectomy patients. May decrease arterial responsiveness to norepinephrine; this diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use. If progressive renal im-

for experience—



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getting really quite impressive that there has developed a high technology in obstetrics and pediatrics that if promptly applied and discriminatingly applied can make a great deal of difference in preserving very fine infants in an intellectual and other sense. Within a region it is possible to give antenatal care to women as they go through gestation and a various points discover some that need special attention, and by then providing that special attention, they can give birth to really fine babies. The idea that modern perinatal technology is a tour de force of obstetricians who end up with a lot of brain-damaged children has now been largely dispelled. There seems no question but that with the proper application of what is known and really has only become known in the last four or five or six years in obstetrics and perinatology, there can be made very substantial reductions in birth injuries, i.e., cerebral palsy and possibly in some other neurologic deficiencies. Here again the information we have now comes from a constituency or a series of them—the patients who sought and obtained the most modern management. What we do not know is what happens when that is done in the world-at-large, so to speak. Above all, what we do not know is throughout the practicing profession whose ox gets gored by regionalization. That is, there are community hospitals involved; there are specialty practices involved. If you take obstetrics away from a hospital, what happens to the pediatrics service? You can move a little baby around with impunity from one hospital—so-called *neonatal* regionalization—to another, but when you start moving the mother, that is another matter. It gets into economics matters for the hospital and the physician; it gets into matters of doctor-patient relationships; it cuts across all sorts of things. Thus we really have to study very carefully what is involved in regionalization before accepting it quite so easily. Involvement in these regionalization programs by the Foundation is an important part of our function. That is to say, we try to take issues like this that seem to be becoming important issues and subjecting them, or more precisely we support the people who wish to subject them to some sort of field trial. In this way some idea is obtained as to what is involved before a particular new system gets approved and suddenly introduced.

Another issue, and one that is occurring rapidly now, is what I call "the moulting" of specialties. "Moulting" in the sense of the metamorphosis of an insect. We do not realize it, but the boundary lines of our specialties have been changing all the time; and what is covered in certain areas today is rather different than it was the case 25 years ago. This process is a continuing one, and it is going on rather extensively at the present time and is actually being actively encouraged. The proponents, those who wish to see a lot more generalists as generalists, have identified, and I think quite properly, the residency as the place in which to make the major effort. When people talk about "the medical school," they use the phrase loosely. Almost invariably it really isn't the medical school to which they are referring; it is the hospital. For it is the internship and residency that makes specialists of us, not our undergraduate medical education. Efforts are being made in programs to modify various types of residencies. The Family Practice movement is one of these, and then there is also an effort to have mixed internships or residencies comprising both internal medicine and pediatrics. What is happening here, I believe, is that most people are quite willing to accept specialists of the type II sort. They become outraged not that there are specialists—they really want specialists—or not that they have to be referred to specialists. Where they become outraged is when they are referred to specialists for what looks to them like trivial reasons—for things that any doctor ought to be able to manage. It is when they have to go through the whole bit of another appointment ten days off and then how do I get Julie home from school that afternoon, etc., principally to satisfy medical specialty sovereignty that they become outraged. In actuality, we have changed rather markedly in that particular in my professional life time.

Forty years ago in hospitals of the front rank it was customary to give people who were being trained in internal medicine some training in the emergency ward and actually a period on surgery. The latter was given not so that they could perform surgery but so they could behave in the presence of important surgical conditions in which they were suddenly confronted and possibly do very minor surgical procedures. Certain aspects of gynecology are not so mysterious that they couldn't be mastered if the young internist were properly trained. Here again many women do resent the fact that medical aspects of gynecology cannot be handled in the office of the general physician to whom they go. There are other examples, but these are enough to support the statement that we are seeing changes in the boundaries of certain specialties taking place through planned changes in the residency programs.

Technologic developments change specialties; for example, thyroid disease was thus changed from one set of specialists to another. Now we see the EM scanner; the exact definition of what it is going to do to specialty lines is not yet clarified, but it obviously has enormous implications for changing things. Fiberoptics has created a type of situation that is also affecting the specialty lines. So that we are seeing what I'd call these ten to fifteen percent type changes in the specialties lines. By this I mean the introduction of only a relatively small extension in what it is an internist is competent to do—really little more than to go back to the way things were. There is one specialty, however, that is probably in for big changes, and that is pediatrics. Pediatrics was invented because nobody was paying any attention to the problems of infants. I have always claimed that pediatrics was invented in New York City by Jacobi and Holt. They started showing that most doctors didn't know what they were doing around children but that certain doctors could, and it could make a difference. Thus pediatrics evolved. What has happened is that with the change in disease pattern that has come about as a consequence of the application of antimicrobial drugs and our other technologies, we have now swept away a large part of the disease pattern from the pediatrician. We now have a situation in which a relatively small number of families can keep a pediatrician busy all the time handling what are usually very minor problems while the pediatrics inhospital services are occupied by children with very exotic diseases which can only be handled by most superspecialists in a field. By contrast with the relatively small number of families relating to the practicing pediatrician, it requires a very large population, perhaps one or two million people, to provide the small number of rare diseases forming the inpatient pattern. Thus we have a tremendous difference between the disease pattern in a pediatrics inpatient service and the disease and illnesses seen by the practicing pediatrician. At the same time, as the old-line diseases have been banished, we are having all kinds of problems with hyperactive children, learning difficulties, cognitive studies, and dyslexia—the whole group of conditions known as minimal brain dysfunction. The alternatives with which pediatrics is now faced is that exclusive of the problems of infancy which might well be handled in the hospital by direct admission through nurse practitioners, the problems are the so-called new morbidity, namely, all these learning difficulties and behavioral problems. The question is, who is going to take care of them? Is it the pediatrician? Will the pediatrician be retreaded to become a cognitive studies person or a behavioral problems person? Or will we develop clinical psychologists, perhaps the equivalent of nurse practitioners or physician's assistants, specially trained clinical psychologists, three or four of whom might report to a single pediatrician? There is the further question, have the psychologists really got anything useful to offer the pediatrician? They unquestionably have a great deal to offer in terms of understanding; the advances that are being made in cognitive studies are really dazzling. But whether they can take this new knowledge and make a useful technology out of it that can be put in anybody's hands is another question. This is a very real issue and is the object of a great deal of work at this time. We also get into the question of "calls" in the various medical specialties; it is sometimes a mistake to try to rearrange people's careers because people may have become pediatricians for special reasons. They didn't become experimental psychologists; they could have, but they elected to become a doctor, or they elected to go into pediatrics. Maybe they went into pediatrics because they liked the old morbidity, and if the morbidity is different, then maybe they would prefer to be orthopedic surgeons or something. So we have this type of problem. Pediatrics is unquestionably involved in a very major revolution. This branch of the profession is being hit from all sides including the fact that more and more and more residencies under the pressure of furthering general medical care are involving pediatrics and internal medicine together.

Putting all these features together, there seem to be really two alternative courses to meet these nationally avowed goals of general medical care for everybody. Both approaches are hospital-based or hospital-connected. By hospital-connected I mean a doctor's office that is in some very intimate communicational relationship with the hospital, not necessarily geographic. Not necessarily in the same neighborhood but very closely related, perhaps by specially adapted electronic devices. One of these alternatives is actually the one of restricting specialists to the British type, sharply limiting their numbers, and find some way of keeping the general physician up-to-date. Ways could be found to keep general physicians up-to-date, but most would require that there be a very highly organized system, such as the British do have. In such circumstances with a very few specialists and many generalists, it would be possible to keep the generalists intellectually current by cycling them through the community hospital at periodic intervals in some way. Obviously, this would also require a structured program in the hospital. This represents one general approach. The other approach would be to exploit what we have, that is, try to build on the hidden system but try to work out ways to provide access to that hidden system. In my own judgment, for our very worst situations—that is, in the worst of the slums, say parts of the South Bronx or Brownsville or in the lowest density of our rural areas—I simply do not see any possibility of our having anything other than a system like the old Indian Health Service or the present Health Service Corps, that is, salaried governmental employees on a one- or two-year rotational basis providing a system of health care as best they can. But for the rest conceivably a system of population-based assignment might be worked out, that is, an assignment in which every physician and every person knows that they are assigned to or have an assignment relationship with a particular doctor or small medical facility. When I say medical facility, it would be all right to be referred to this hospital (Sharon); it would not be all right, in my judgment, to have one's assignment be to some very large medical center. It would have to be to some considerably smaller unit than that, even if located in such a large center. One way of making such arrangements is to set up group practices in connection with community hospitals.

There is some movement in the group practice field, but here again groups are adapted to certain areas of the country. They obviously are not an instrument that can be used everyplace. Another way, and a way which I believe has not received the attention it deserves possibly because of its origin, are the Foundations for Medical Care. The Foundation for Medical Care movement rationally meets a great many of the objections that one can see down the road that immediately would occur with any other system. For those of you who are not familiar with the Foundations for Medical Care, they were invented by physicians in California who felt themselves threatened by the growth of the Kaiser Health Plan. Prepaid medical care of the Kaiser-type was snapping at their heels, and they needed a defense. So they invented Foundations for Medical Care. The principle of the Foundation is that a group of doctors get together, maybe a whole county medical society, and sign a contract and sell a prepaid medical care plan in which they deliver the care in their own individual offices as part of all the rest of the fee-for-service practice that they do. Their waiting rooms are thus filled with the patients they regularly have but also some people who are on a prepaid basis by virtue of having signed up through the Foundation. The Foundation has central administrative people who help in the financing and organization. The various physicians linked together in a Foundation can use cross-referral arrangements not unlike the way one does in a group practice. The Foundation movement has not swept the country by any means. They have run into some troubles, including troubles from financing. They are set up in such a way that they get so much money to take care of the year, and if the budget runs out about the first of November, the physician has to treat the patients free the last two months. The next year the doctors are understandably reluctant to sign that kind of a contract. Then there are the problems involved in getting medicaid fees, etc. However, there are some attractive aspects to the idea. One is that the expertise access problem is handled. The physician is seeing very sick people as well as very well (his own practice, so to speak), and the access problem is handled in that the prepaid group have an assignment. So it is a way of handling both the expertise and access problem and still keeping people in the private sector. I hope it gets a thorough trial.

I come to my close of isolating the issues and attempting to see where we are going. I believe there will be a very great push on all of us to do something about the access business, and that is one of the two problems that we simply have to solve. Cost controls is the other. I recently had occasion to go over the impact of the personal encounter physician system, that is, the doctor system with which we are familiar, on the disease pattern of the country. Quite contrary to what one sees in the popular writers' books these days, it is very clear that the personal encounter physician system is functionally a very effective system with a lot of impact on disease and illness. The question for us is to be sure it meets its full social value, which is the only way it will ultimately be allowed to survive at its present high level. Whether our system allows medicine to fulfill its full social value will be judged in one way or another by our ability to meet these various problems, notably access and control of costs.

Month in Washington

President Carter has signed into law stiff penalties for providers who are found guilty of fraud in the Medicare and Medicaid programs.

The new law levies felony penalties to a maximum $25,000 fine and five years in prison replacing the misdemeanor penalties of up to a $10,000 fine and one year in prison.

The bill passed overwhelmingly by Congress and sent to the White House is aimed at providers and retains misdemeanor penalties for recipients convicted of defrauding the programs. It was the first major health bill of the Administration to become law.

Providers found guilty of fraud and abuse will be treated as felons and punished by up to five years in jail and/or a fine up to $25,000. Previous law considered such violations as misdemeanors rather than felonies.

Illegal "kickbacks" among providers are defined and institutions are compelled to submit ownership data to the government. One of the main targets of the bill was so-called "Medicaid mills" and kickbacks uncovered in several large cities.

The disclosure requirements do not apply to individual physicians or to groups of physicians.

States must form anti-fraud units separate from their health departments in order to qualify for Medicaid funding.

Other provisions:

**States can supersede PSRO activities covering Medicaid if they demonstrate to the federal government that PSROs are making decisions that "have a detrimental effect" on state Medicaid spending.

**The Health, Education & Welfare Department was given the authority to select regional or national intermediaries if it concludes that existing intermediaries within a state are doing a poor job.

**Most Medicaid reimbursement would have to be made within 30 days by the states.

An amendment giving HEW power to initiate suits was dropped from the measure by House-Senate conferees, but Rep. Paul Rogers (D-Fla.) said Attorney General Griffin Bell had informed him that the FBI was training 350 agents to audit Medicare and Medicaid records. Rogers is Chairman of the House Commerce Subcommittee on Health.

Sen. Herman Talmadge (D-Ga.), Chairman of the Senate Finance Subcommittee on Health, said the bill is a "clear, loud warning to thieves and crooks that will be heard in unmistakable tones."

Meanwhile, HEW Secretary Joseph Califano, told a television panel show that taxpayers are losing at least $1 billion a year through payments to ineligible people. Califano denied reports HEW is abandoning "project integrity," declaring that 2,500 cases of provider fraud are being investigated on a state-by-state basis for possible prosecution.

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Final Congressional hearings on the Administration's stumbling Hospital Cost Containment program have been conducted by the Senate Finance Committee and all indications are that no legislation will be enacted this year.

Subcommittee Chairman Herman Talmadge (D-Ga.) has said his information from the House side was that representatives are not "overly optimistic" the House will move before the end of the current session.

In an opening statement, Talmadge said he feared the Administration's proposed nine percent "cap" on all hospital revenues could harm efficient hospitals. "Irreparable harm" could befall the hospital system, the senator said. "While there are many obese hospitals, there are many lean ones," he said. "I don't want to put all hospitals on a 1,200-calories-a-day diet."

Talmadge said his staff has drawn up a set of recommendations for an approach melding some of the Administration's ideas with Talmadge's own long-standing proposal for a thorough overhaul of Medicare and Medicaid hinging on prospective reimbursement for hospitals to encourage efficiency.

The importance attached to the issue by the Administration was evident from a letter sent by President Carter to Talmadge and House health subcommittee chairmen Reps. Dan Rostenkowski (D-Ill.) and Paul Rogers (D-Fla.) declaring that "one of my most important priorities is to secure strong legislation to restrain the skyrocketing increase in health care costs." Carter said "I wish to reaffirm my strong personal commitment to the Administration's Hospital Cost Containment legislation."

The first witness before Talmadge was HEW Secretary Joseph Califano who charged that if Congress delays passage another four months "there will be an additional inflation of $2.8 billion in hospital costs." "I must underscore again the enormous adverse impact on our health care system caused by continued delays. . . "

Continuing his assault on hospitals, Califano said

Prepared by the Washington, D.C.
Office of the American Medical Association.

many institutions "are wallowing in ice cream, candy and cake."

"Our citizens simply cannot afford this mindless, inexorable spiraling of health expenditures that impoverish other needed health care programs and send the costs of medical care out of sight," said the HEW Secretary.

The American Medical Association told the subcommittee that a "cap" is "manifestly unfair" and would discourage hospitals from improving services. Robert B. Hunter, MD, Chairman of the AMA Board of Trustees, said the more admissions a hospital has "the more likely it is to be penalized."

"Artificial limitations, irrespective of how generous or how restrictive, are unrealistic," said Dr. Hunter.

The bill includes medical equipment in physicians' offices under capital expenditure limitations when the cost is above $150,000. This provision "is both unjustified and unsupportable," said the AMA witness. "Such a limitation would prove onerous, especially for physicians first opening practices as well as for those desiring to modernize offices in order to assure continued quality patient care."

The subcommittee was urged to keep in mind "that full access to quality care for those individuals needing health care services requires appropriate resources." Dr. Hunter said "arbitrarily limiting resources—both physical and financial—affects not only access, but also quality." He suggested any cost containment plan be started as a local experiment to determine its workability.

John Alexander McMahon, President of the American Hospital Association, told the subcommittee that the Administration bill "would seriously jeopardize the present and future ability of hospitals to provide quality care to the American people."

Applying a uniform cap on all hospitals "would exert the heaviest pressures where they are least appropriate—on the most efficient hospitals," said McMahon. These facilities would be forced to curtail essential services, according to McMahon.

Hospitals purchase and use many services and goods that rise faster in cost than the rest of the market, McMahon testified. On the 15 percent rise in hospital costs last year, 10 percent was purely the result of inflation and five percent "resulted from increased intensity and improvement in patient care."

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The Congressional investigation of whether there is too much surgery has boiled down to a question of whose study to believe and whose interpretation is correct. Rep. John Moss (D-Calif.), Chairman of the House Commerce Subcommittee on Oversight, insists there is far too much surgery despite protests from many physicians and evidence from studies that his contentions are overblown.

Moss attacked the conclusions of a study headed by Ralph Emerson, MD, President of the New York State Medical Society, that less than one percent of major operations are being performed with less than usually accepted indications.

Moss and his subcommittee have been relying on another study that 17 percent of surgery is not required, extrapolating that there are 2.4 million unnecessary operations yearly and 11,900 deaths from these procedures.

The Emerson study, underway since the late 1960's, used preset criteria for monitoring quality of surgical care, criteria prepared by four state medical schools, the state Department of Health and the state medical society. In addition to finding less than one percent of major operations questionable, the study found two or three percent of minor surgery in this category.

Karl Pfuetze, MD, a cardiologist from Kansas City and an expert on surgical statistics, testified that the so-called McCarthy study was employed erroneously by the subcommittee. The finding of a 17 percent difference of opinion on whether surgery should be performed stems only from the fact that there will be a range of from 10 to 20 percent of differing opinion for much elective surgery, said Dr. Pfuetze.

He said that if every surgeon sought the opinion of ten other surgeons on each case, there would often be one or two or three dissenters. But the majority judgment in such cases would be accepted. However, seeking these consultations separately for each case would result in a difference of opinion ranging from 10 percent to 30 percent.

Said the witness:

"Previous alarming calculations of so-called unnecessary surgery have been based on estimates, misunderstandings of the mathematical implications of experimental design, a lack of understanding about what really produces a difference of opinion between physicians. The result of these factors has produced a 700-1700 percent overestimate of so-called unnecessary surgery and a 3700 percent overestimate of unnecessary deaths."

"I do not believe that it serves any useful purpose to continue to assume that the previous figures on unnecessary surgery are either accurate or useful," said Dr. Pfuetze.

C. Rollins Hanlon, MD, Director of the American College of Surgeons, said "The College recognizes the need to consider the complexity and cost of surgical procedures as well as the need for broad knowledge of surgical biology, diagnostic skill and operative skill to make the patient safe for the operation, and the operation safe for the patient."

Reflections from the Dean's Office

ROBERT U. MASSEY, M.D.

From whatever standpoint it is seen, history moves by fits and starts. Nations and institutions, like living organisms, engage in strenuous activity for a time, and then rest. In the words of the Preacher, "To every thing there is a season, . . . a time to break down, and a time to build up."[1]

The reflective and conservative mood that seems to be everywhere in the West makes the present feel like a time of rest, a time of apathy and exhaustion. The curtain fell abruptly on a decade of turmoil and change just as the last American soldier left Southeast Asia.

Now there is a mood of expectancy. For the problems which appeared in sharp focus in the last decade, there have been no solutions, or at least none which work. Now we repeat the list like a litany: energy, population, pollution, the bomb, health care, inflation, racism.

In medicine, the list is familiar. In his remarks to the American Hospital Association in August, Robert Derzon,[2] Administrator of the Health Care Financing Administration, introduced his problem list with, "You know the litany . . . " and recounted the six-fold increase in per capita health spending in 25 years, the tripling of nursing home costs in six years, the 20 per cent increase in medicare and medicaid payments to physicians during each of the past two years; and the doubling of hospital costs every five years since 1965.

At the November meeting of the Association of American Medical Colleges, Ivan Bennett, in his Chairman's address, repeated the long list of problems facing medical schools and at regular intervals chanted "cost containment," evidently as the "Good Lord, deliver us" upon which hangs the entire litany. The words have come to lose their meaning in the rhythm of their vain repetitions: access, quality, equity, and cost.

There are as yet no clear directions. We tell one another that unless we solve these problems ourselves, they will be solved for us by someone else. The regulators say that unless they have more power to regulate, there will be "severe chaos within the next three or four years."[3] There is no common mind about what to do next; meanwhile the doctors blame the hospitals, the lawyers, and the insurance companies; the hospitals blame the doctors for all the costs; the insurance companies hint at greed and say the system is badly managed; and everyone tells the patients to take better care of themselves, and not to expect so much.

The government and social planners are advocating revision of the whole medical care system so that it will be more like the British National Health System, or the Canadian system, or the German system, or the Russian system. The disappointing but rarely admitted facts are that none of these has solved the problems. In Scandinavia the costs are higher; in Britain the physicians are demoralized and a patient may have to wait years to have his hernia repaired; in Jugoslavia, where the government controls everything, they cannot control distribution; and Russia certainly has more than two standards of medical care. It may be that planning followed by regulation will improve access, reduce costs, raise quality, and advance biomedical knowledge along more socially useful lines. There has been, however, no evidence that this is so.

Ian Lawson,[4] in a recent article in the Hartford *Courant,* referred to the "Corporate-Regulative Complex" which is preoccupied "with annual 'bottom line' accounting and dollar 'savings'. While major economic, social, and professional issues are not exactly ignored, neither are they of central concern. They are to be patronized, like boys clubs and the performing arts." This Corporate-Regulative Complex, he writes, "in its fiscal management of health care, lacks a competent social stratagem which is ethically circumspect. . . . "

That is the efficacious word: providing medical care and advancing biomedical knowledge are ultimately ethical matters, having to do with what we *should* do, concerned with values.

In this expectant time, after the tumult and the shouting of the last decade, there is a sense that important issues like world health, energy, population control, and banning nuclear weapons cannot be managed until individually we get our values straight. Meanwhile, we should recall John Stuart Mill:[5]

"The . . . most cogent reason for restricting the interference of government is the great evil of adding unnecessarily to its power. Every function superadded to those already exercised by the government, causes its influence over hopes and fears to be more widely diffused, and converts, more and more, the active and ambitious part of the public into the hangers-on of the government, or of some party which aims at becoming the government."

REFERENCES

1. Ecclesiastes 3. 1,3
2. Derzon RA: Remarks before the American Hospital Association, August 29, 1977. Atlanta, Georgia
3. Ibid
4. Lawson I: In Search of the Health Care Dollar, Hartford *Courant,* November 13, 1977
5. Mill JS: *On Liberty,* Chapter 5, 1859

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EDITORIAL

The Hospital and the Community

This issue includes an important report by Ellen Jodaitis, Ph.D., titled "Windham Community Memorial Hospital and the Community it Serves: A Private Corporation and the Public Interest."

She states: "The matters . . . are not unique to Windham Hospital. They are issues that have arisen in other hospitals in the state and nationally as well." I agree; I publish it not for details unique to Windham Hospital, but because the issues can be extrapolated to the hospitals in our state.

The stimulus for her study was a long, bitter nurses' strike and a request by the Hospital to the community to support its fight against the Commission for Hospitals and Health Care to restore its budget that had been denied by the agency.

The Hospital's asking for community support opened up discussion by the community as to the Hospital's role in relation to it—and this study. Many of her suggestions have already been carried out by the Hospital. An active dialogue with improving relations between the Hospital, including its medical staff, and the community is taking place. The issues are educational and informational to our members, especially as they relate to their own particular hospital.

Though much has been written about the governance of voluntary hospitals in our country, such articles usually are not published in medical journals. I think they should be—because hospitals are so important in our professional lives. Legally, such hospitals are private corporations, but because of their increasing public involvement and regulation, tax-free status, financial support by their communities, and monopoly status in some communities, the courts increasingly are calling them "quasi-public," legally neither completely private nor public, and in some respects one or the other.

When such hospitals were incorporated, the usual pattern for selection of members of the corporation (here 150) was from the "leaders" of the community, who, at their one yearly meeting, elected a smaller committee, the board of trustees (here 35), which met more frequently to do the actual business of the Hospital. As Dr. Jodaitis notes, election of the corporators was self-perpetuating. It conforms in process more to the prototype of the business corporation rather than to the politically democratic elections in our society. As she describes it, the corporate structure was a facade: The corporators neither discussed nor participated in the decisions; election of the trustees by them was pro forma; the self-perpetuating election of the corporators smacks more of a public relations project rather than a meaningful input from the community.

As much as one admires the trustees for the time and effort they give to the Hospital, they usually do not represent a cross-section of the community, hardly ever including, even ex-officio, politically elected representatives of the community or state for active participation. The increasing intrusion into hospital business through rules, regulations, and statute through the political process would seem to make some input and even participation by such representatives almost mandatory. Membership is mainly made up of business executives, bankers, lawyers, and a few other professionals who, though informed and knowledgeable, do not broadly represent the community.

Critics state that their decisions do not necessarily reflect community consensus; usually smack of paternalism; and sometimes reveal conflicts of interest. Criticisms pointed out by Dr. Jodaitis that may be generalized are: Meetings of hospital boards are closed to the public and to the press; priorities affecting the community are established by a small group without participation by the community at large in decision-making; their priorities may not reflect those of the community. The critics may be wrong, but closed meetings, especially by bodies with public interest, breed dissatisfaction and groundless rumor.

So it is no wonder that courts, reflecting social change and in the tradition of the common law, are categorizing as quasi-public such hospitals in their public and fiduciary role. In fact, there are some who would place such hospitals in the category of privately owned utilities—to be regulated by governmental agencies.

The role of physicians in the governance in such voluntary hospitals, and especially in their interface with local communities, is a different subject, though increasingly important. This Hospital, like most, follows the suggestion of the Joint Commission on Accreditation of Hospitals in having a Joint Conference Committee, here made up of a 6-member executive committee of the board of trustees and 6 members of the medical staff. Also, the elected chief of the medical staff is a member of the 25-member board of trustees which, in consultation with the medical executive committee, actually governs the Hospital.

My own interest in the legal status of the voluntary hospital derives from a long and continuing study of the legal rights or privileges of physicians in hospitals. The medical profession, both at state and national levels, has adopted the policy of the open staff. No longer should a physician's right to practice in the hospital be referred to as privileges, but presumptively as a constitutionally protected property right. Also, members of the medical staff should be elected to the governing body, not as a token, but enough in numbers to be meaningful and responsible—enough to reflect a reasonable input from the medical staff.

The question we physicians should be asking ourselves is whether or not hospital medical staffs should be speaking out on community problems as a group function with a collective voice through their elective officers, especially if hospital boards do not buy the idea of meaningful representation from the medical staff.

I shall not repeat the questions Dr. Jodaitis poses for consideration except to say that they are responsible issues to which we physicians in our hospital staffs collectively should address ourselves.

In brief, however, not only for ourselves as physicians, but as citizens of the community we should agree with her thesis that voluntary hospitals not only have a public trust, but also should be part of and open to its community, including politically elected representatives and the local press. We Americans and physicians should get used to calling our voluntary hospitals quasi-public, neither private, nor, fortunately, governmental.

Fred Fabro, M.D.

BOOK REVIEW

Costs, Risks, and Benefits of Surgery. Edited by John B. Bunker, M.D., Benjamin A. Barnes, M.D., and Frederick Mosteller, Ph.D. Oxford University Press, New York, N.Y., 1977, $22.50.

This book should be "must" reading for every physician who is even remotely concerned with the concepts of health care costs, National Health Insurance, the socio-economics or the politics of the health care industry. The introductory and theoretical chapters will be rewarding for any reader, as will the conclusions, and the mathematics is simple and clear.

Cost Benefit Analysis arose because decisions had to be made between various alternative projects in the allocation of finite numbers of health dollars by governmental agencies. It is a relatively simple idea. The costs and benefits of a proposed project, therapy or regime are toted up and compared. If costs outweigh benefits, one might be negatively inclined, and if the reverse, more positive. This is essentially an economic technique and therefore the units of measurement are dollar values.

The physician will have no problem with the costs of hospital care, drugs, physicians' services and little with valuing loss of earnings. He will begin to boggle a bit at valuation of a wife's services and those of a mother. He will be increasingly perturbed at placing dollar values on a unit time of a human life, on pain, grief, family conflict and other aspects of the quality of life. It is clear that valuation of the facets of the quality of life is uncertain and difficult, compared to valuation of quantitative matters.

This reviewer is impressed with the honesty of the various presentations and with the attempt to make the decision-making processes in Surgery, specifically, and in Health Care, generally, more objective. But he is concerned at the following sequence of thoughts: "Public and professional attitudes toward costs of medical care, to the extent that costs have been considered at all, have frequently taken the view that a human life is priceless, and that no cost can or should be spared in the effort to save life. Whether or not such a position was appropriate in the past, we are now capable of developing lifesaving methods well beyond our capacity to pay for them. Coronary artery bypass surgery or renal transplantation may be treatments for our society as a whole that costs more than we are able or willing to pay." You will find this extended quote on page 389 in the summary chapter.

To this juncture, the decision-making process, variable though it may be, has been the concern, and a private one at that, of the patient, family and physician. I do not agree personally with the statement "Society decides, and must decide, what resources to make available for medical care." Implicit in this conclusion is an idea that should concern us all, namely, that the individual right to decide serious matters of personal health should now become the right of Society in general. I do not accept the concept that the individual should have no right of decision. I do believe that the methods described represent an exciting and innovative approach to decision making in health care. Individual physicians and their representative organizations are obliged to become knowledgeable about both Cost Benefit Analysis and Decision Theory as applied to medical care. Let us not have them burst over the heads of the public and ourselves and be unprepared to discuss them with intelligence.

Paul Sanazaro, M.D., in a review of this book for the *Western Journal of Medicine,* puts it beautifully and I quote—: "It is doubtful that the American public is about to delegate to a regional or national body the authority to arbitrarily pre-empt the availability of therapy which is perceived by physicians and their patients as potentially helpful."

Jerome K. Freedman, M.D.

Letters to the Editor

Letters to the Editor are welcomed and will be published, if found suitable, as space permits. Like other material submitted for publication, they must be typewritten *double spaced* (including references), must not exceed 1½ pages in length and will be subject to editing and possible abridgment.

DOCTORS—UNJUST?

To the Editor: How unjust, people saying doctors are indifferent! How unjust?

Patient referred to orthopedist with covering letter, diagnosis and treatment of knee condition requested. Response from orthopedist: none.

Patient referred to gynecologist with covering letter, pelvic exam requested. Response from gynecologist: none.

Patient referred to oncologist, letter subsequently sent inquiring about his progress. Response from oncologist: none.

The first two patients took the trouble to let me know what the consultant said. The third patient used to drop in to chat, but not lately. I'm left to wonder what fate may have in store for him. And for us, if patients must teach us civility.

Russell V. Fuldner, M.D.

New Haven, CT

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Easier on the Mother . . . by providing more comfort and extra sleep for the baby, Dentocain Mild grants the mother greater peace of mind and several additional hours of necessary rest.

DENTOCAIN ADULT is also useful in providing temporary relief for pain of adult toothache. (Adult Formula contains 15% Benzocaine.)

FORMULA

Alcohol	56.1%
Benzocaine	10%
Peppermint Oil	0.7%

DENTOCAIN CO.
P.O. Box 133
Bloomfield, Conn. 06002

Professional samples and descriptive literature sent on request.

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA

THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W., WASHINGTON, D. C. 20005

FROM THE EXECUTIVE DIRECTOR'S OFFICE

160 St. Ronan Street, New Haven, Conn. 06511
Telephone 865-0587

Francis G. Sweeney
Assistant Executive Director
Public Affairs

William R. Richards, M.D.
Executive Director

Josephine P. Lindquist
Associate Executive Director

Robert J. Brunell
Assistant Executive Director
Scientific Activities

Summary of Actions
Council Meeting
Thursday, October 27, 1977

I. Attendance

Present in addition to the Chairman, Dr. D.A. Grendon, and the Vice Chairman, Dr. G.W. Van Syckle, were: Drs. Friedberg, Freedman, Kamens, Backhus, Johnson, Ragland, Jr., Spitz, Hess, Canzonetti, Bradley, Cramer, Fabro, McGarry, Harkins, James, Mendillo, Whalen, Anderson, Jameson, E. Beck, R. Beck, Eslami, Barrett and Middleton.

Also present: Mrs. Lindquist, Mrs. Arafeh (CSMS Auxiliary), Mr. Brunell, Mr. Aaronson (NHCMA) and Dr. Richards.

Absent were: Drs. Sadowski, Krinsky, Sonnen, Horrax, Magram, Parrella and Zlotsky.

II. Routine Business

Approval of Minutes

It was VOTED to approve the minutes of the meeting of October 5, 1977, as published and distributed.

Life Memberships

It was VOTED to approve applications for Life Membership received from the following eligible Active Members:

Silvio J. Caserta, Bridgeport; Nathan H. Friedman, Stratford; Gerard R. Miller, Manchester; Joseph A. Perkins, Hartford; Samuel Spencer, Fairfield; James J. Sponzo, Hartford.

Election of Student Members

It was VOTED to elect to Student Membership forty-two Connecticut residents who are attending medical schools in the United States.

Council-Directed Communications

It was VOTED to receive as information copies of two subject communications, prepared by Staff, as follows: (a) Letter to Aetna re advertisement, appearing in publications nationally, concerning the rising costs of health care services. The advertisement was considered by the Council to be unfair to physicians and in poor taste; (b) Letter to the federal Health Resources Administration commenting on proposed federal guidelines for state and local planning agencies. It was the Council's position that *federal* guidelines (such as "maximums" and "minimums") for health planning should not be imposed on state and local agencies.

Date of Next Meeting

The Chairman set the date of the next meeting as Wednesday, December 14, 1977.

III. Old, New and Special Business

Reports—Fiscal Subcommittee

The Council acted on a series of reports by the Subcommittee as follows:

(a) *Consortium of Connecticut Health Professional Societies:* VOTED to approve a recommendation of the F.S. that $25 be contributed by the Society to fund the administrative costs of the subject Consortium. A number of representative professional organizations have undertaken a joint study of P.A. No. 77-614—An Act Concerning the Reorganization of the Executive Branch of State Government, particularly as the new law will affect the operation of the examining (for licensure) boards of the respective professions.

(b) *Meeting of AMA Medical Student Session, Chicago, 12/3-4/77:* VOTED to approve a recommendation of the F.S. that $200 be offered to the Deans for Student Affairs at the Yale and UConn medical schools for the purpose of subsidizing the attendance of one or more students from each school at the subject Medical Student Session programs.

(c) *Proposed Grant from Connecticut Humanities Council:* VOTED to receive as information a report of the F.S. on its evaluation of the grant to the Society proposed by the CHC for publishing "Humanities Studies in Medicine" in the Journal, and to approve the Subcommittee's recommendation that a somewhat amended grant proposal be offered by the Society for consideration by the CHC. It was further VOTED that if the CHC accepted the Council's counter-proposal, the Executive Director be authorized to consummate the grant arrangements; if not, that the matter be referred back to the Fiscal Subcommittee for additional study.

The Budget for Fiscal 1978

The Council VOTED to accept for filing a report of the Fiscal Subcommittee concerning the proposed budget for fiscal 1978. Following presentation and explanation of the report by the Treasurer, Carl W. Johnson, the Council further VOTED to approve the budget as prepared by the Subcommittee and to transmit same to the House of Delegates with a recommendation for approval by the House; also with a recommendation that membership dues remain at $100 in 1978.

In conjunction with the foregoing actions, the Council VOTED to receive and approve a document submitted by the Journal Editor, J. Alfred Fabro, entitled "The Journal and Its 1978 Budget". In brief, the Editor outlined some of his plans—including certain changes in direction and emphasis—that he is contemplating as to the over-all format of the Journal during 1978.

Report on Proposed Reorganization of CMI, Inc.

It was VOTED to receive as information a subject report submitted by George A. Bonner, New Haven, a CSMS representative on the Board of Directors of the Connecticut Medical Institute. Also received as information were verbal reports given by members of the Council who also serve on the CMI Board. Following discussion of the several reports, the Council VOTED to instruct the Society's representatives on the CMI Board of Directors to cooperate in effecting the reorganization of CMI that was reported by Dr. Bonner et al to be under consideration.

Report of Committee on CME— "The Status of CME in Connecticut"

It was VOTED to accept and approve the subject report of the Committee, and to transmit the report to the House of Delegates with the Council's recommendation for approval. Without vote, it was suggested to the Speaker and Vice Speaker of the House of Delegates that three items of business relating to continuing medical education (including a resolution on mandatory CME that was adopted by the House on 11/19/75), previously placed on the table, be referred to the Reference Committee assigned the present report of the CME Committee so that, if indicated, appropriate recommendations can be made concerning possible disposition of the tabled items.

Report—Committee on Peer Review Systems

It was VOTED to receive as information a report of the Committee which recommended that the Society communicate to appropriate HEW officials a petition that the regulations pertaining to the updating of usual, customary and prevailing levels of physicians' charges be amended in such a way as to accomplish a more realistic updating of prevailing levels and allowable payments that will reflect more closely the actual usual and customary charges made for their services by physicians. It was further VOTED to approve the Committee's recommendation for implementation.

Report on Meeting with Commissioner Lloyd re "Informed Consent"

It was VOTED to receive as information a report on the proceedings of a 10/21/77 meeting of representatives of the Society and the Connecticut Hospital Association with the Commissioner of Health to discuss a proposed Public Health Code regulation which would impose on hospitals primary responsibility for assuring that "Informed Consent" is obtained from each patient on whom the physician proposes to perform procedures "which are invasive of the patient's bodily integrity or involve recognized risks to his/her life and well-being", and which calls for the hospital to establish and enforce a policy that would transfer its subject responsibility to patients' attending physicians. The report was submitted by Jerome K. Freedman, President-Elect, who represented the Society at the meeting.

The report indicated that while CHA and CSMS spokesmen expressed strong opposition, the Commissioner appeared to remain firm in his opinion that such a regulation is needed to protect the interests of patients. However, he agreed to hold a public hearing on the subject on 11/21/77 at which interested parties may give pro or con testimony.

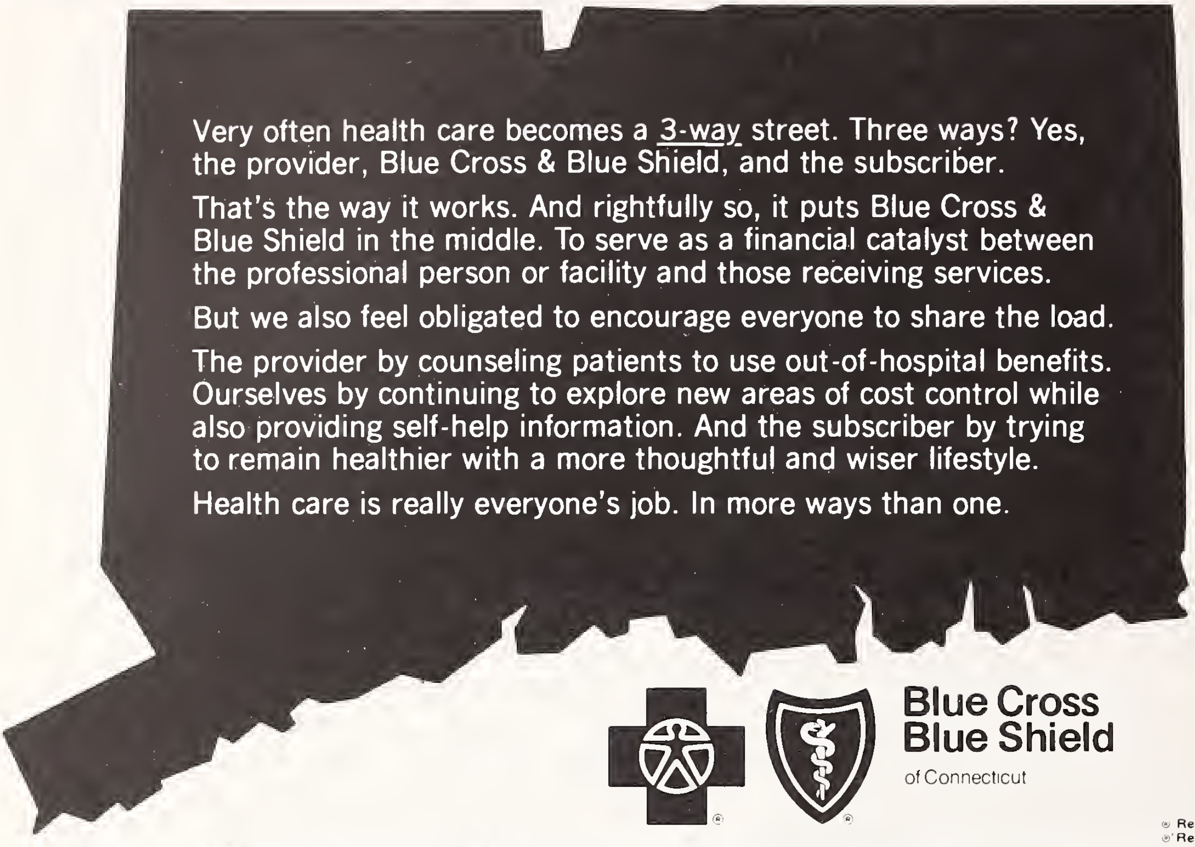
After lengthy consideration of the matter, the Council VOTED to approve the report and to request Dr. Freedman to represent the Society at the forthcoming public hearing and to testify in opposition to the proposed regulation along the general lines described in his report.

Membership "Committee Service" Questionnaire

It was VOTED to receive as information a verbal report of a subcommittee of the Council's Subcommittee on Administrative Organization and Planning that recommended that information regarding member interest in serving on committees of the Society be sought via the medium of a committee service questionnaire (utilized for the same purpose on two occasions in prior years). It was further VOTED to approve and implement the subject recommendation as follows: (1) Staff to update the prior questionnaire; (2) Make an initial distribution of the questionnaire to members of the House of Delegates on 11/17/77; (3) Publish the questionnaire in the Journal (December issue if possible) so that all members of the Society will have opportunity to complete and return it to St. Ronan Street; (4) Request the Editor to publish in the Journal "as a filler" throughout the year an announcement requesting members to express their interest in serving on any of the Society's committees and to send this information to the Executive Director's office.

N.B.: *The foregoing is a summary of the proceedings and actions of the Council on October 27, 1977. Detailed minutes of the meetings are on file at 160 St. Ronan Street, New Haven, for perusal by any interested member of the Society.*

all of us helping each of us



Very often health care becomes a 3-way street. Three ways? Yes, the provider, Blue Cross & Blue Shield, and the subscriber.

That's the way it works. And rightfully so, it puts Blue Cross & Blue Shield in the middle. To serve as a financial catalyst between the professional person or facility and those receiving services.

But we also feel obligated to encourage everyone to share the load.

The provider by counseling patients to use out-of-hospital benefits. Ourselves by continuing to explore new areas of cost control while also providing self-help information. And the subscriber by trying to remain healthier with a more thoughtful and wiser lifestyle.

Health care is really everyone's job. In more ways than one.

Blue Cross
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of Connecticut

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A COMPREHENSIVE PSYCHIATRIC TREATMENT CENTER FOR ADULTS AND ADOLESCENTS

Elmcrest is a fully-accredited 105-bed private psychiatric hospital for the treatment of psychological and emotional disorders in adults and adolescents in a therapeutic community.

THE TREATMENT PROGRAM INCLUDES:

☐ DIAGNOSTIC SERVICES AND PSYCHOPHARMACOTHERAPY
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☐ DRUG, ALCOHOL AND VOCATIONAL REHABILITATION
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Assistant Medical Director

ELMCREST PSYCHIATRIC INSTITUTE
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PORTLAND, CONNECTICUT 06480
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COMMITTEE SERVICE QUESTIONNAIRE

Connecticut State Medical Society

Early in February the Councilors from the eight constituent county medical associations assume the responsibility of selecting members of the Society to participate in the various activities of the Society listed below. In making these selections it is of importance to choose physicians who are not only willing and able to serve but also who are known to have an interest in the work of the group to which they may be assigned. In order to enable this office to furnish the Councilors with a compilation of those who desire to be considered for committee service, all members are asked to indicate by number in order of preference (not more than three) opposite your choice in the questionnaire below and return same to the:

Executive Director's Office
160 St. Ronan Street
New Haven, CT 06511.

Your cooperation will be appreciated.

Medical Education

☐ Committee on Continuing Medical Education
☐ Committee on Program of the Scientific Assembly

Medical Economics

☐ Committee on Insurance
☐ Committee on Professional Liability
☐ Committee on Peer Review Systems
☐ Committee on Third Party Payments

Professional Relations

☐ Judicial Committee

Public Affairs and Communications

☐ Editorial Committee of "Connecticut Medicine"
☐ Committee on Legislation
☐ Committee on Public Relations

Scientific and Socio-Environmental Medicine

☐ Committee on Accident Prevention and Emergency Medical Services
☐ Cancer Coordinating Committee
☐ Committee on Drug Abuse Educational Programs
☐ Committee on Maternal Morbidity and Mortality
☐ Committee on Medical Aspects of Sports
☐ Committee on Mental Health
☐ Committee on Organ and Tissue Transfers
☐ Committee to Study Perinatal Morbidity and Mortality
☐ Committee on Public Health
☐ Committee on Continuing Medical Care and Rehabilitation
☐ Committee on Statewide Medical Planning

Representatives and Advisors

☐ Committee on Allied Medical Services
☐ Committee on Hospitals
☐ Committee on Cooperation with the Medical Schools of Connecticut
☐ Liaison Committee with Connecticut Pharmaceutical Association
☐ Liaison Committee with State Department of Social Services
☐ Representatives to Connecticut Advisory School Health Council
☐ Delegates to Connecticut Health Association, Inc.
☐ Delegates to Connecticut Nutrition Council
☐ Representative to Connecticut Advisory Committee on Foods and Drugs
☐ Delegates to Council of New England State Medical Societies

Please Return by January 15, 1978

Signed: ______________________________ M.D.

Office Address: ______________________________

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PHYSICIAN PLACEMENT SERVICE

The Society maintains the Physician Placement Service as a service to the medical profession in the State of Connecticut. Opportunities for physicians to locate in Connecticut will be published as space permits and will be distributed to physicians making inquiry of such opportunities. Information should be sent to 160 St. Ronan Street, New Haven, Connecticut 06511 (203-865-6822).

Physicians wishing to establish practice in Connecticut are invited to submit a resume to be kept on file with the Society. An announcement of a physician's availability will be published in two consecutive issues of *Connecticut Medicine*.

OPPORTUNITIES FOR PRACTICE

(If no name is listed, contact the Physician Placement Service for more details.)

Suitable for all specialties: Physician to share well-equipped modern office in rapidly growing area. Mr. Dick Ross, 1300 Hopmeadow, Simsbury, CT 06070. 203-651-3316.

Multiple Specialty Group planning new building, Enfield, CT. Needs Radiologist, Hematology-Oncology, Pediatrician, Neurology, Family Practitioners. If interested, please contact Julio N. Coelho, M.D., 203-749-8384 or write 535 Hazard Ave., Enfield, CT 06082.

Family Medicine: Position available with three-man Family Medicine Group and a consulting psychologist. Contact Theodore Safford, M.D., Ridgefield Medical Group, 38 Grove Street, Ridgefield, CT 06877.

Internal Medicine: (Cardiology). Cardiology practice and office building for sale in CT. Call evenings 442-3256.

OB-GYN: Board certified 33-year-old Ob/Gyn physician in New Haven solo practice is seeking board certified or eligible associate. Send C.V. to CSMS to be forwarded.

OB-GYN: Board certified or eligible to associate with young board certified, in rapidly growing practice. Excellent community hospital. New Haven area. Yale appointment by choice. Early partnership. Send C.V. to CSMS to be forwarded.

OB-GYN: Board certified or eligible to practice with young certified Ob-Gyn in northwest CT. Salary followed by partnership. Send C.V. to CSMS to be forwarded.

Pediatrics: Solo Pediatric and Allergy practice available January 1978, Hamden, CT. Suburb of New Haven with courtesy privileges at Yale-New Haven and St. Raphael's Hospitals. Call 203-288-6441.

Psychiatry: Part-time Psychiatrist needed. Write or call Steven L. Taube, M.D., Division of Psychiatry, Waterbury Hospital, 64 Robbins St., Hartford, CT 06720. 203-573-6109.

Psychiatric practice for sale in Eastern CT. Diplomate contemplating retirement. Now working half-time for ample income with minimal expense. Send C.V. to CSMS to be forwarded.

Psychiatry: Exciting opportunity for dynamic part-time or full-time psychiatrist; consult, diagnose, and treat adolescents in expanding psychiatric facility, faculty appointment available. Must be board certified or licensed or eligible for license to practice psychiatry in CT. Salary commensurate with experience, plus excellent fringe benefits. Direct resumes to Superintendent, Adolescent Unit, Connecticut Valley Hospital, P.O. Box 351, Middletown, CT 06457.

Two Board Certified Radiologists: Progressive 85 bed acute care general hospital in cosmopolitan, semirural area approximately 75 miles from NY seeks one full-time Director and one full-time Associate, to replace a shared, multispecialty contractual group. Excellent salary and fringe benefit programs commensurate with experience. Director—5 years of hospital-based professional and administrative experience. Both Radiologists should have practiced in a broad range of diagnostic radiology. Preference will be given to Radiologists who have capabilities in nuclear medicine, tomography, and/or special procedures. Department utilization is currently at an annual level of 16,000 diagnostic examinations and 1,000 examinations in a new and growing nuclear medicine department. All services have a high level of out-patient activity. Contact Saul H. Slone, Administrator, New Milford Hospital, 21 Elm St., New Milford, CT 06776.

Physicians needed for Social Security Disability Determination. Bd. Cert. or Elig. physicians are needed as agency consultants doing consultative examinations. Exams are scheduled in your office, reimbursement specifics provided upon request. Many specialty fields are needed, especially IM, Orthopedics, Neurology and Psychiatry. Contact Robert P. Coletti, Medical Processing Coordinator, Bureau of Disability Determination, 600 Asylum Avenue, Hartford, CT 06105 or call collect 566-4902.

PHYSICIANS WISHING TO LOCATE IN CONNECTICUT

ANESTHESIOLOGY

Jan. '78. Age 45. Conn. license. Nat'l bds., cert. Presently in practice. M.D. from NY Univ., int. from Bronx Mun. Hosp., and res. at Center, Bronx. Wishes grp. practice. Contact CSMS - M.W.

DERMATOLOGY

July '78. Age 28. FLEX, elig. M.D. from Med. Coll. of VA, int. at Mt. Auburn, (Harvard), res. at Temple Med. Center, (skin & cancer). Wishes solo, grp., or assoc. practice. Richard J. Herschaft, M.D., 777 N. 24th St., Philadelphia, PA 19130.

July '78. Age 29. Nat'l. bds. M.D. from Louisville. Int. at Nassau Cty. Med. Ctr., presently doing res. program at Un. Hosp.-Cleveland-Case Western Reserve Sch. of Med. Wishes grp. or assoc. practice, but will consider an HMO organization. Contact CSMS - A.D.K.

INTERNAL MEDICINE

Infectious Disease: July '78. Age 32. Nat'l. bds., cert. M.D. from Univ. of IL. Int., res. and fellowship all at Univ. of Michigan. Grp. practice in large community. Interested in practicing IM/Inf. Dis. and teaching in those areas if possible. Jack Ebright, M.D., 1210 Grand Crescent, Ann Arbor, MI 48103.

July '78. Age. 33. FLEX, elig. July '78. M.D. at Bologna, Italy. Int. and res. at Jewish Hosp. and Med. Ctr., Brooklyn. Interested in primary care as a general internist. Wishes solo, grp. or assoc. practice. Gerald Einaugler, M.D., 2270 Ocean Ave., Brooklyn, NY 11229.

INTERNAL MEDICINE

Early '78. Age 35. Conn. license pending. FLEX. M.D. at Univ. Santo Tomas. Int. at Watts Hosp., NC and St. Clare Hosp., NY. Wishes solo practice. Contact CSMS - R.C.E.

Hematology/Oncology: July '78. Age 31. Nat'l. bds., cert. M.D. at Georgetown. Int. and res.-Med.-Presby. Un. Hosp., Univ. of Pgh. Fellowship, Ohio State (H/O). Wishes grp. practice in large or medium community. John J. Halpin, M.D., 1089 Elmore Ave., Columbus, O 43224.

Pulmonary: July '78. Age 29. Nat'l. bds., cert. M.D. from Univ. of NC. Int., Jr. and Sr. res. and fellowship in Pulmonary all at Univ. of NC. Willing to combine the practice of IM with subspecialty practice. Wishes grp., assoc. or institutional practice in large or medium community. Steven H. Kaufman, M.D., Box 109, Polks Landing, Chapel Hill, NC 27514.

Pulmonary: July '78. Age 29. Nat'l. bds, cert. M.D. from Jefferson Med. Coll., inter. and res. at Cornell, North Shore Univ. Hosp., and Mem. Sloan Kettering Hosp. Presently doing fellowship at Univ. of New Mexico. Grp. or assoc. practice primarily involving chest disease/IM. Especially ICU, bronchoscopy, pulmonary function. Norman H. Braslow, M.D., 8005 Hendrix, N.E., Apt. #622, Albq., NM 87109.

Gastroenterology: July '78. Age 31. Nat'l. bds., Cert-(6/77). M.D. from Univ. of Rochester, int., res. and fellowship at Univ. of VA Hosp. Grp. or assoc. practice desired. Avrum H. Blitzer, M.D., 128-8 Ivy Dr., Charlottesville, VA 22901.

Hematology-Oncology: July '78. Age 32. Nat'l. bds. IM/Cert., H-O/Elig. M.D. from Downstate. Int. and res. at Albert Einstein and Bronx Municipal Hosp. Grp. or assoc. practice with mostly subspeciality, but some IM. Donald C. Brennan, M.D., 3351 S. Port Dr., Sacramento, CA 95826.

Nephrology: June '78. Age 29. Nat'l. bds., elig. M.D. from Med. Coll. of PA. Int. and Chief res. at NJ Med. School, fellowship at NY Hosp.-Cornell. Interested in practice in IM and/or nephrology with another individual, a group or hospital-based. Lawrence H. Byrd, M.D., 445 E. 68th St., Apt. 4-E, NY 10021.

Gastroenterology: July '78. Age 29. M.D. from NY Univ., inter. and res. at NC Mem. Hosp. Fellowship in GI at Peter Bent Brigham Hosp., Harvard Med. Sch. Solo, grp. or assoc. practice with effective, reliable cross-coverage. Would like to have endoscopy facilities available through a hospital or group. Kevin V. Carey, M.D., 49 Marion St., Apt. 6-C, Brookline, MA 02146.

Nephrology: July '78. Age 28. Nat'l. bds., elig. BA from Yale, M.D. from Tufts, inter. res. and fellowship from NC Baptist Hosp. Grp. or institutional practice desired. Fully trained in dialysis, renal biopsy, transplantation. Ralph J. Caruana, M.D., 2556 Alderney La., Winston-Salem, NC 27103.

Cardiology-Pulmonary: July '78. Age 29. Nat'l. bds, Cert. M.D. from Jefferson Med. Coll. Int. and res. from Indiana Univ. Fellowship in Cardiology from Indiana Univ. and Loyola Univ. and pulmonary fellowship from Univ. of Illinois. Solo, grp., assoc. or hospital based practice desired. Prefers a practice of Cardiology—invasive or non-invasive. Also would do a limited amount of pulmonary depending on the situation. John J. Cassel. M.D., 101 Valley Dr., Bolingbrook, IL 60439.

Oncology-Hematology: July '78. Age 31. Nat'l. bds., cert. M.D. from Pittsburgh Univ. Int. and res. at PA Hosp., fellowship from Univ. of Colorado Med. Center. Grp. or assoc. practice desired. Robert B. Cooper, M.D., 6752A E. Cedar Ave., Denver, CO 80224.

July '78. Age 28. Nat'l. bds. M.D., int. and res. at Univ. of Rochester. Grp. assoc. or institutional practice desired. Paul R. Coutu, M.D., 509 University Park, Rochester, NY 14620.

Cardiology: July '78. Age 29. Nat'l. bds., cert./IM, elig./Cardiology. M.D. from Med. Coll. of Ohio. Int., res. and fellowship from Ohio State Univ. Grp., assoc. or institutional practice desired. Would prefer association with cardiology group involved with both invasive and non-invasive opportunities. Milan R. Dopirak, M.D., 2211 Blackoak, Columbus, OH 43229.

OBSTETRICS-GYNECOLOGY

July '78. Age 28. Nat'l. bds. M.D. from Univ. of PA. Int. and res. at Hosp. of Univ. of PA. Would like to join a group of at least two, and preferably three Ob/Gyn's. Louis J. Freedman, M.D., 210 Locust St., Apt. 12A, Philadelphia, PA 19106.

July '78. Age 33. Conn. license. Elig. M.D. and int. all in India. Res. in England and NY. Wishes grp. or assoc. practice in medium community. N. K. Gupta, M.D., 1650 Selwyn Ave., Apt. 8-B, Bronx, NY 10457.

July '78. Age 29. Elig. June '78. M.D. from Pakistan. Int. at Greater Baltimore Med. Ctr., res. at Downstate and Bronx Lebanon Hosp. Will consider all types of practice. Akbar Omar, M.D., 85 Riverdale Ave., #A-642, Yonkers, NY 10701.

Available now. Age 32. Nat'l. bds., elig. M.D. from NJ Coll. of Med. Int. and res. at UConn at New Britain Gen. Hosp. Wishes grp. or assoc. practice. Richard Malafy, M.D., Lake Rd., Newport, VT 05855.

OPHTHALMOLOGY

Jan. '78. Age 30. Elig. Presently in practice. M.D. from Dalhousie Univ. Int. and res. at Victoria Gen. Hosp. Fellowship at Barnes Hosp., MO. Wishes solo, grp. or assoc. practice desired. Contact CSMS - M.J.G.

July '78. Age 28. Nat'l. bds., elig. M.D. from Univ of Vermont. Int. at Marion Co. Gen. Hosp., IN. Res. at Univ. Hosp. of Cleveland. Fellowship at Mt. Sinai Hosp., NY. Pursuing glaucoma fellowship. Grp. or assoc. practice desired. Contact CSMS - A.P.M.

Ophth.-I.M.: March '78. Age 44. FLEX. Cert. and elig. Presently in practice in GA. M.D. from Bern Med. Sch., Switzerland. Post graduate education at Buffalo's Gen., Children's and Veterans' Hospitals. Will consider all types of practice. Contact CSMS - P.H.S.

ORTHOPEDICS

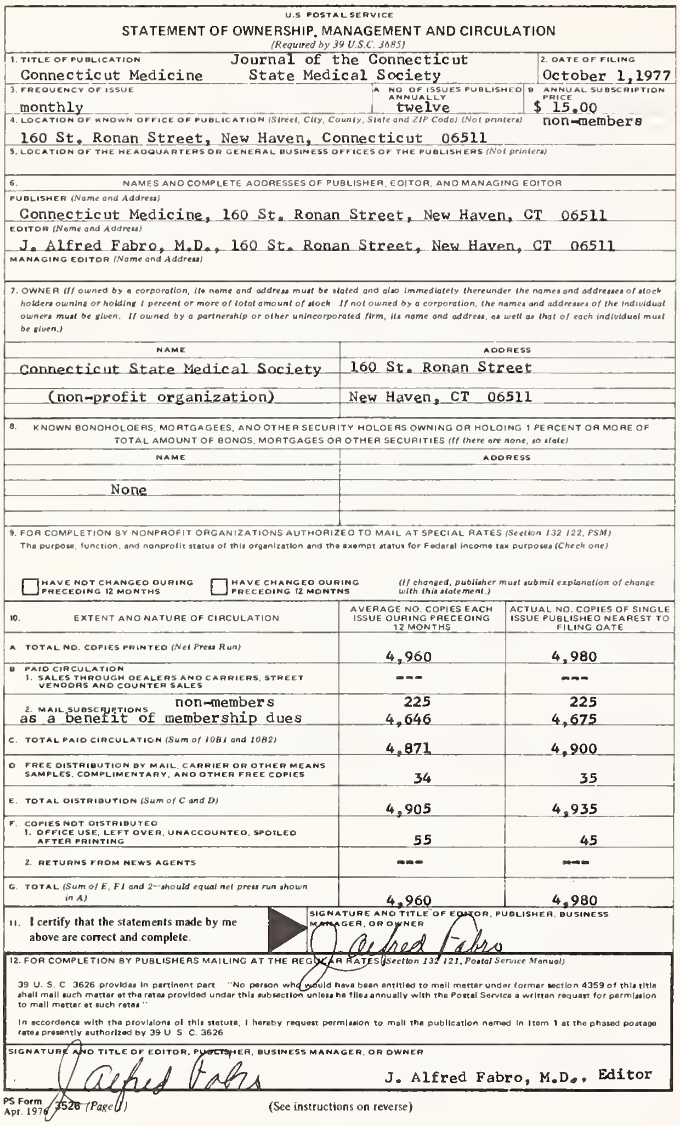
Available now. Age 32. FLEX, elig. Surgical Int. at Worcester City Hosp., Surgical res. at Sisters Hosp., NY and orth. res. at Univ. Mass. Grp. or assoc. practice along coast, but will consider any area. B.N. Lakshmikanth, M.D., 1 Einhorn Rd., Worcester, MA 01609.

OTOLARYNGOLOGY

Available immediately. Conn. license. Elig. M.D. from Scotland. Surgery int. Ottawa Gen. res. in Otol. at St. Luke's Hosp., NY. Clinical and research fellowship at St. Luke's. Assoc. or univ. type practice. With reference to type of practice, open to discussion and community need. Contact CSMS - F.H.P.D.

PATHOLOGY

Nuclear Medicine: Available immediately. Age 30. FLEX, elig. Bd. elig. in Anatomical and Clinical Pathology with one year of nuclear med. M.D. and int. in Pakistan. Res. programs at Buffalo Gen., Elmhurst Gen., NY in pathology and UConn in nuclear med. Contact CSMS - S.A.



U.S POSTAL SERVICE

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

(Required by 39 U.S.C. 3685)

1. TITLE OF PUBLICATION: Connecticut Medicine Journal of the Connecticut State Medical Society
2. DATE OF FILING: October 1,1977
3. FREQUENCY OF ISSUE: monthly
A. NO. OF ISSUES PUBLISHED ANNUALLY: twelve
B. ANNUAL SUBSCRIPTION PRICE: $ 15.00 non-members
4. LOCATION OF KNOWN OFFICE OF PUBLICATION *(Street, City, County, State and ZIP Code) (Not printers)*: 160 St. Ronan Street, New Haven, Connecticut 06511
5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS *(Not printers)*:

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Connecticut Medicine

Connecticut State Medical Journal

SUBJECT INDEX

Volume 41 December, 1977

A

Alcohol Patient, Emergency Care and Evaluation of the (Two Parts) (Kinsella and Africano) .... x 655, xi 729
Alcohol Treatment Services in Connecticut Hospitals (Kinsella) .... v 299
AMA, Excessive Fees in Continuing Medical Education, Council on Medical Education .... vii 435
AMA Family Practice—A Ten-Year Review, Council on Medical Education .... vi 368
AMA, Medical and Health News, Summary of .... iii 155, iv 204, viii 508
AMA, National Health Insurance, Board of Trustees .... iv 231
AMA, Physician-Hospital Relationships, Board of Trustees .... ix 577
AMA, Physicians Attending Patients in Long-Term Care Facilities, Guidelines for, Council on Medical Service .. x 663
AMA, Primary Care Specialties, Designation of, Council on Medical Services .... iii 157
AMA, Washington Office, What It Does and How It Functions .... viii 507
Angina Pectoris, Surgical Management of Unstable (Langou) .... vi 337
Annual Meeting, Program—185th CSMS .... iii 185, iv 251
Annual Reports, 1976-1977 .... vii 451, viii 521
Asthma, An Up-to-Date Look at an Old Problem (O'Loughlin) .... ix 537

B

Behavior Modification; Perspective on a Current Issue (Brown) .... v 289
Biliary Atresia, Hepatic Portoenterostomy for (Seashore) .... i 1
Book Reviews .... i 57, iii 184, v 328, xi 738, xii 809
Bowel Carcinoma, Palliative Irradiation in Large (Knowlton and Percarpio) .... xi 691
Breast, Operation for Carcinoma of the, Mayo Clinic .... iv 249
Breast Cancer, Bilateral Adrenalectomy for Advanced Female (Wawro with Mukerji and Deren) .... ii 67

C

Calcium and the Kidney, Renal Osteodystrophy and Renal Calculi (Fifth of Five Parts) (Mundy with Canalis and Raisz) .... iv 205
Cancer, Adjuvant Treatment of (Nystrom and Viola) .... v 265, vi 333
Cancer Coordinating Committee, Statement of (Radiation-Related Thyroid Cancer) .... i 55
Cardiac Monitoring, Ambulatory (Hankin) .... vi 341
Cardiac Rehabilitation, The New Britain Program (Leach and Scoppetta) .... v 270
Cecal Hematoma (Lytle and Goldenberg) .... xii 755
Cholesterol Cholelithiasis (Fisher and Binder) .... viii 467
Chondrocalcinosis—Pseudogout Syndrome, The (Weinstein with Urman, Abeles and Lowenstein) .... xi 693
Cirrhosis, Primary Biliary (Levine) (Medical Grand Rounds from UConn, Irwin H. Lepow) .... v 293
Civil Commitment in Connecticut, Public Act 77-595 (McCullough) .... xi 705
Civil Commitment Reform in Connecticut (Rubenstein with Zonana and Crane) .... xi 709
Colo-Rectal Cancer, Recent Trends in Surgery for (Wright) .... xi 689
Computerized Tomography, Interim Guidelines for, State of Connecticut, Commission on Hospitals and Health Care .... x 651
Computerized Tomography, The First Line of Investigation in Cranial Trauma (Barry and Rothman) .... xii 763
Computerized Tomography in the Evaluation of an Abdominal Inflammatory Mass (Rothman and Munechika) .... xi 727
Connecticut Commission on Hospitals and Health Care (Howard and Jarrett) .... ii 105
Connecticut Hospitals and Health Commission, Commentary (Grendon with Goodwin, Forand and Hyde) .... iii 163
Connecticut's Medicare B. Assignment Rate, CSMS .... xi 719
Consent, Manual on Informed, Connecticut Hospital Association (Tilson and Eisner) .... ii 99
Coronary Heart Disease, Concepts and Controversies about the Prevention of (Blackburn) .... i 7
Coronary Surgery for Patients with Angina Pectoris (Langou and Wiles) .... vii 405
Countersuits in Spurious Medical Malpractice Claims (Willis and Bodine) .... xii 771

D

Dean's Office, Reflections from the .. i 49, ii 115, iii 177, iv 244, v 316, vi 378, vii 438, viii 514, ix 591, x 668, xi 735, xii 807
DNA Research, Recombinant, Benefits and Risks (Adelberg) .... vii 397
DNA Research, Recombinant, The Public and (Callahan) .... ix 569
Drug Information Center—A Rapid Source for Therapeutic Information (Chow) .... vi 375
Drug Regulation Overdue, Reform in (Roll) .... i 27
Duodenal Ulcer, Results for Elective Operation for (Butterfield and Foster) .... ix 545
Dying in a System of "Good Care," Case Report and Analysis (Netsky) .... i 33

E

Ectopic ACTH-MSH Production (Lopez with Burd and Sacks) .... xii 759
Edelin Decision Revisited (Affleck and Thomas) .... x 637
Ejaculation, Premature (Wabrek and Wabrek) .... iv 214
Estrogens, Menopause and Cancer (Casey) .... xii 776
Ethical Safeguards in Research (Toulmin) .... iv 235
Executive Director's Office, From the .... i 58, ii 123, iii 187, iv 257, v 325, vi 385, vii 460, viii 517, ix 598, x 672, xi 741, xii 812

EDITORIALS
Abortion and the Language of Feeling (Thomas) .... iv 245
Academic Integrity, To Maintain (Berliner) .... ix 593
Adversary System and Drug Regulation (Lasagna) .... i 54
Apollo Fallacy, The (Robin) .... viii 515
Cancer Patients, Meeting Psycho-Social Needs of (Casey) .... vi 382
CAT Scanners, Let Us Reason Together (Karraker) .... ix 595
Cervical-Vaginal Cytology Smear, Routine (Vidone) .... iii 182
Colorectal Cancer, Adjuvant Therapy (Lundy) .... v 317
Commentary (Solnit) .... i 53
Continuing Medical Education (Freedman) .... iii 181
Coronary Bypass Surgery (Aronson) .... vi 380
Cost Control (Meyer) .... ix 594
DNA Recombinant Research (Fabro) .... vii 441
DNA Recombinant Research, Guidelines for (AMA Council) .... ix 596
EMS Systems Justification—The Need for CSMS and State Government Support (Brandt) .... vi 381
Estrogens in Obstetrics, Risks of (Meigs and Watman) .... v 319
Federal Immunization Insurance Corporation, For a (Neumann) .... ii 118
F.T.C., Who's Afraid of the (Roth) .... vii 439
Hospital and the Community, The (Fabro) .... xii 808
Journal Budget, 1977 (Fabro) .... ii 119
Medical Audit and Continuing Medical Education (Hamaty) .... x 670
Medicredit—1977 (Fabro) .... iv 246
Mentally Ill, The Local Physician and The Care of the (Plaut) .... xi 737
Prevention, What Price? (Affleck) .... vii 440
Psychiatry and Politics in the USSR (Schoenberger) .... v 319
Rabies in Connecticut (Neumann) .... iv 247
Radiation-Related Thyroid Cancer (Bradley) .... i 55
Smoking and the Nonsmoker (Fabro) .... iii 182
Unborn Child, The (Mahoney) .... ii 117
"Unnecessary" Hysterectomy (Morris) .... x 669
Woman's Inhumanity (Fleck) .... viii 516

F

Federal Trade Commission on Health, National Health Council .... xi 697, xii 793
Fetal Research, Ethical Considerations in (Mahoney) .... ii 85
Free Flap Transfer in Reconstructive Surgery (Finseth and Krizek) .... x 610

G

Genetic Disease, New Developments in Screening for (Third of Six Parts) (Seashore) .... iii 145
Geriatric Medicine, The Necessities (Butler) .... vi 372

H

Hammond Award, *Connecticut Medicine* .... vii 443
Healing of the Person, The (Newton) (Humanistic Studies in Medicine, Stuart F. Spicker) .... x 641
Health-Care Services, Ethical Issues Regarding the Delivery of (Rescher) (Humanistic Studies in Medicine, Stuart F. Spicker) .... viii 501
Hepatitis, Viral (Chotkowski) .... xi 686
Hospitals and Health Care, Commission on, Third Annual Report to the Governor and General Assembly .... vii 419
House of Delegates, Summary of Proceedings, Semi-Annual Meeting, Annual Meeting .... i 58, vii 447
Human Fetus, The Nature and Extent of Research Involving the (Mahoney) (Abstracted by Florence Keller) .... iv 227
Humanistic Issues at the Interface of Nursing and the Community (Gadow) (Humanistic Studies in Medicine, Stuart F. Spicker) .... vi 357
Humanistic Studies in Medicine (Spicker) .... v 305, vi 357, viii 501, x 641
Hypercalcemia, Diagnosis and Therapy (Third of Five Parts) (Canalis with Mundy and Raisz) .... i 16
Hypercalcemia, The Pathogenesis and Therapy of a Case of Malignant (Mundy) (Medical Grand Rounds from UConn, Irwin H. Lepow) .... iii 151
Hyperparathyroidism, Current Surgical Management of (Mannix, Jr.) .... iii 133
Hypothyroidism, Psychosis as an Early Manifestation of, Myxedema Madness (Davidoff and Gill) .... x 618

I

Ileostomy, Enteritis and the Continent (King) .... viii 477
Impotence, A Case Report (Wabrek and Wabrek) .... xii 761
Infertility, Acquired Renal Concentrating Defect Following Demeclocycline Therapy for (Riddick and Voytovich) .... xi 684
Influenza Epidemic of 1918/1919, The Waterbury (Wallach) .... vi 349
Informed Consent, Recall by Patients Tested Postoperatively (Robinson and Merav) .... iv 223
Intussusception in Children (Immordino) .... ii 76

J

Juxta Renal Aortic Occlusive Disease, Surgical Treatment of (Ierodiaconou with Marjani and Dunn) .... x 607

L

Letters To The Editor .... i 57, ii 120, iii 169, iv 256, v 321, vi 382, 383, vii 443, ix 597, x 671, xi 738, 741, xii 810
Licensure of Allied Health Personnel, CSMS Position Statement on (Prepared by Connecticut Joint Practice Committee .... iv 240
Liver, Pyogenic Abscess of the (Horanieh with Patel and Mannix, Jr.) .... v 276

Lung Carcinoma, Spontaneous Pneumothorax as a Presenting Feature of Primary (Yusuf with Luria, Marjani and Dunn) ... iv 210
Lymphedema, An Overview (LiCalzi and Kerstein) ... viii 485

M

Marihuana, Current and Recurrent Issues in Connecticut (Pet) ... ii 91
Medical Care, Future of General (McDermott) ... xii 796
Medical Care Evaluation Studies, What Do They Measure (Gonnella) ... ix 574
Medical Education, Cost, Quality and (Massey) (Medical Grand Rounds from UConn, Irwin H. Lepow) ... ix 559
Medical Grand Rounds from UConn (Lepow) ... iii 151, v 293, vi 353, viii 495, ix 559
Medical Manpower and Public Policy, A Short History of P.L. 94-484 (Viseltear) ... ix 565
Medical Practice, A View of the Future (Roy) ... v 285
Melanomas, Fascinating Tumors (Norlund and Lerner) .. vii 414
Memoriam, In ... i 62, ii 127, iii 194, iv 260, v 328, vi 390, viii 532, ix 602, x 678, xi 743
Mental Health, Polygamous State of (Lourie) ... i 37
Mentally Ill, Releasing the, Justice or Irresponsibility (Tancredi and Slaby) ... vii 429
Minor's Right to Consent to Medical Treatment, The (Holder) ... ix 579
Month in Washington ... i 47, ii 113, iii 172, iv 241, v 309, vi 376, vii 437, viii 511, ix 585, x 665, xi 732, xii 805

N

Near-Drowning (Fine) ... iv 216
Neuro-Oncology (Dohrmann) ... xi 696
New Britain General Hospital v. The Commission on Hospitals and Health Care (Alcorn) ... x 629
New Members, Welcome ... vii 459, ix 587
Notices ... i 57, ii 121, iv 259, viii 519, ix 602

O

Obituaries ... i 62, iii 194, vi 389, ix 601
Oculopharyngeal Dystrophy, Hereditary (Sataline and D'Angelo) ... vii 412
Orthopaedic Conversion Reactions in Children and Adolescents (Ehrlich and Fisher) ... xi 681

P

Paget's Disease of Bone, Recent Advances in Therapy (Fourth of Five Parts) (Canalis with Mundy and Raisz) ... ii 79
"PAP" Smear Hospital Screening, Nurse-Run (Fischer with Russo, Matthew and Conway) ... iii 143
Patient, Caring for the (Strauss) ... iv 219
Pharyngeal Paresis, Unilateral (Sasaki and Kirchner) ... vi 345
Physician Placement Service ... i 63, ii 129, iii 195, iv 261, v 329, vi 391, vii 464, viii 533, ix 603, x 676, xi 746, xii 816
Physician's Dual Mandate from Society, The (Halper) (Humanistic Studies in Medicine, Stuart F. Spicker) ... v 305
Pneumococcal Osteomyelitis and Arthritis in an Infant (Lakhani) ... viii 479
Preceptorships and Medical Education (Two Parts) (Smith) ... vi 362, x 647
President, Address of the ... vii 448
President's Page, The ... ii 116, iii 179, iv 243, v 313, ix 589, x 667
President to the House of Delegates at its Semi-Annual Meeting, Report of the ... i 50
Prisoners, Research Involving, HEW (abstract) ... v 323
Profession Liability Insurance Program, August, 1977, CSMS, Aetna Life & Casualty ... ix 555
Psychiatric Consultant, When and How to Use a (Straus) ... x 626
Public Act 76-276—Concerning Disability of Physicians .. iv 239
Pulmonary Artery Pressure, The Value of Monitoring, in Clinical Practice (Dizon and Barash) ... x 622
Pulmonary Artery Simulating Central Bronchogenic Carcinoma, Post-Stenotic Dilatation of the (Al-Hanna with Fazzone and Fishbone) ... ix 552

Q

Questionnaire, Committee Service ... xii 815

R

Rehabilitation Efforts in an Amputee Population, Evaluation of (Adler with Hamaty, Brown, Jr. and Potts) ... x 614
Rehabilitation in Lower Extremity Amputees, The Delays in the (Kerstein with Zimmer, Dugdale and Lerner) ... ix 549
Renal Vein Thrombosis (Rowett with Zavod, Damjanov and Baldwin) ... viii 473
Residents Merit Award ... viii 530
Respiratory Distress Syndrome, Adult (Sulavik and Godar) (Medical Grand Rounds from UConn, Irwin H. Lepow) ... viii 495
Respiratory Distress Syndrome, Adult, Current Perspective (Fine) ... i 14
Respiratory Failure in the Surgical Patient, Acute (Barash and Kosarussavadi) ... ii 73
Rheumatoid Arthritis of the Hand (Harrison) ... iv 199

S

Scoliotics, Pulmonary Evaluation of (Pierce) ... v 280
Sex Counselor, The Physician as (Mason) ... iii 159
Sinusitis, intracranial Complications of (Yue and Sasaki) ... ii 70
Slow Virus Diseases (Neumann) ... xii 756
Standards for Sponge, Needle and Instrument Procedures ... ix 583
Staphylococcus Sepsis, Factitious Contributions to a (Hale) (Medical Grand Rounds from UConn, Irwin H. Lepow) ... vi 353

Subclavian Vein Cannulation, Complications and Pitfalls of, An Update (Schapira with Stern and Frost) .... iii 140
Supreme Judicial Court of Maine, Abdollah Gashgai, M.D. v. Maine Medical Association, Et Al .... ii 95
Surgeon Doesn't Want Counts, What if the (Regan) .... viii 513
Syphilis in Connecticut, A Case of Fatal (Lee and Risser) .... viii 470

T

Technology Assessment, the Congress, and Health (Daddario) .... i 23
Tenosynovitis, Acute Suppurative (Ahamed) .... i 12
Transfer Factor, Clinical Enigma (First of Two Parts) (Graziano and Dwyer) .... xii 751
Trichinosis in Connecticut, A Family Outbreak of (Lee and Mangi) .... iii 136

U

Utilization Review, Connecticut Blue Cross .... viii 509

V

Vaginal Evisceration Following Total Abdominal Hysterectomy (McGinn with Grannum and Reichenbach) .... vii 410

W

Windham Hospital and the Community it Serves (Jodaitis) .... xii 765

AUTHORS' INDEX

Volume 41 December, 1977

A

Abeles, Micha (with Weinstein, Urman and Lowenstein)
  Chondrocalcinosis, Pseudogout Syndrome, The .... xi 693
Adelberg, Edward A
  DNA Research, Recombinant, Benefits and Risks .... vii 397
Adler, Mark K. (with Hamaty, Brown, Jr. and Potts)
  Rehabilitation Efforts in an Amputee Population, Evaluation of .... x 614
Affleck, Glenn (with Thomas)
  Edelin Decision Revisited .... x 637
Africano, Arthur (with Kinsella)
  Alcohol Patient, Emergency Care and Evaluation of the (Two Parts) .... x 655, xi 729
Ahamed, Sultan
  Tenosynovitis, Acute Suppurative .... i 12
Alcorn, Howard
  New Britain General Hospital v. The Commission on Hospitals and Health Care .... x 629
Al-Hanna, Youssef A. (with Fazzone and Fishbone)
  Pulmonary Artery Simulating Central Bronchogenic Carcinoma, Post-Stenotic Dilatation of the .... ix 552

B

Baldwin, David B. (with Rowett, Zavod and Damjanov)
  Renal Vein Thrombosis .... viii 473
Barash, Paul G. (with Dizon)
  Pulmonary Artery Pressure, The Value of Monitoring, in Clinical Practice .... x 622
Barash, Paul G. (with Kosarussavadi)
  Respiratory Failure in the Surgical Patient, Acute .... ii 73
Barry, Jane W. (with Rothman)
  Computerized Tomography, The First Line of Investigation in Cranial Trauma .... xii 763
Binder, Henry J. (with Fisher)
  Cholesterol Cholelithiasis .... viii 467
Blackburn, Henry
  Coronary Heart Disease, Concepts and Controversies about the Prevention of .... i 7
Bodine, David (with Willis)
  Countersuits in Spurious Medical Malpractice Claims .... xii 771
Brown, Bertram S.
  Behavior Modification, Perspective on a Current Issue .... v 289
Brown, Curtland C., Jr. (with Adler, Hamaty and Potts)
  Rehabilitation Efforts in an Amputee Population, Evaluation of .... x 614
Burd, Robert M. (with Lopez and Sacks)
  Ectopic ACTH-MSH Production .... xii 759
Butler, Robert N.
  Geriatric Medicine, The Necessities .... vi 372
Butterfield, Spencer L. (with Foster)
  Duodenal Ulcer, Results of Elective Operation for .... ix 545

C

Callahan, Daniel
  DNA Research, The Public and Recombinant .... ix 569
Canalis, Ernesto M. (with Mundy and Raisz)
  Calcium and the Kidney, Renal Osteodystrophy and Renal Calculi (Fifth of Five Parts) .... iii 205

Canalis, Ernesto M. (with Mundy and Raisz)
Hypercalcemia, Diagnosis and Therapy
(Third of Five Parts) ... i 16
Canalis, Ernesto M. (with Mundy and Raisz)
Paget's Disease of Bone, Recent Advances in
Therapy (Fourth of Five Parts) ... ii 79
Casey, Murray Joseph
Estrogens, Menopause and Cancer ... xii 776
Chotkowski, Ludmil A.
Hepatitis, Viral ... xi 686
Chow, Moses S.S.
Drug Information Center, A Rapid Source
for Therapeutic Information ... vi 375
Conway, David F. (with Fischer, Russo and Matthew)
"PAP" Smear Hospital Screening, Nurse-Run ... iii 143
Crane, Lansing E. (with Rubenstein and Zonana)
Civil Commitment Reform in Connecticut ... xi 709

D

Daddario, Emilio Q.
Technology Assessment, the Congress, and Health ... i 23
Damjanov, Ivan (with Rowett, Zavod and Baldwin)
Renal Vein Thrombosis ... viii 473
D'Angelo, Eugene (with Sataline)
Oculopharyngeal Dystrophy, Hereditary ... vii 412
Davidoff, Frank (with Gill)
Hypothyroidism, Psychosis as an Early Manifestation
of, Myxedema Madness ... x 618
Deren, Michael (with Wawro and Mukerji)
Breast Cancer, Bilateral Adrenalectomy
for Advanced Female ... ii 67
Dizon, Cayetano T. (with Barash)
Pulmonary Artery Pressure, The Value of
Monitoring, in Clinical Practice ... x 622
Dohrmann, George J.
Neuro-Oncology ... xi 696
Dugdale, Frederick E. (with Kerstein, Zimmer and Lerner)
Rehabilitation in Lower Extremity Amputees,
The Delays in the ... ix 549
Dunn, Edward (with Ierodiaconou and Marjani)
Juxta Renal Aortic Occlusive Disease,
Surgical Treatment of ... x 607
Dunn, Edward (with Yusuf, Luria and Marjani)
Lung Carcinoma, Spontaneous Pneumothorax as a
Presenting Feature of Primary ... iv 210
Dwyer, John M. (with Graziano)
Transfer Factor, Clinical Enigma (First of Two Parts) xii 751

E

Ehrlich, Eugene L. (with Fisher)
Orthopaedic Conversion Reactions in
Children and Adolescents ... xi 681
Eisner, J. Michael, Esq. (with Tilson)
Consent, Manual on Informed, Connecticut
Hospital Association ... ii 99

F

Fazzone, Philip R. (with Al-Hanna and Fishbone)
Pulmonary Artery Simulating Central Bronchogenic
Carcinoma, Post-Stenotic Dilatation of the ... ix 552
Fine, Norman L.
Near-Drowning ... iv 216
Fine, Norman L.
Respiratory Distress Syndrome, Adult,
Current Perspective ... i 14
Finseth, Frederick (with Krizek)
Free Flap Transfer in Reconstructive Surgery ... x 610
Fischer, David S. (with Russo, Matthew and Conway)
"PAP" Smear Hospital Screening, Nurse-Run ... iii 143
Fishbone, Gerald (with Al-Hanna and Fazzone)
Pulmonary Artery Simulating Central Bronchogenic
Carcinoma, Post-Stenotic Dilatation of the ... ix 552
Fisher. Robert L. (with Ehrlich)
Orthopaedic Conversion Reactions in Children
and Adolescents ... xi 681
Fisher, Rosemarie Lucianin (with Binder)
Cholesterol Cholelithiasis ... viii 467
Forand, F. Bernard
Commission and the Statute (Commentary) ... iii 166
Foster, James H. (with Butterfield)
Duodenal Ulcer, Results of Elective Operation for ... ix 545
Frost, Elizabeth A. (with Schapira and Stern)
Subclavian Vein Cannulation, Complications and
Pitfalls of, An Update ... iii 140

G

Gadow, Sally A.
Humanistic Issues at the Interface of Nursing and
the Community (Humanistic Studies in Medicine,
Stuart F. Spicker) ... vi 357
Gill, John (with Davidoff)
Hypothyroidism, Psychosis as an Early
Manifestation of, Myxedema Madness ... x 618
Godar, Thomas J. (with Sulavik)
Respiratory Distress Syndrome, Adult (Medical Grand
Rounds from UConn, Irwin H. Lepow) ... viii 495
Goldenberg, Ira S. (with Lytle)
Cecal Hematoma ... xii 755
Gonnella, Joseph S.
Medical Care Evaluation Studies,
What Do They Measure ... ix 574
Goodwin, Dorothy C.
Hospital Costs, Larger Issues in (Commentary) ... iii 164
Grannum, Peter A.T. (with McGinn and Reichenbach)
Vaginal Evisceration Following Total
Abdominal Hysterectomy ... vii 410
Graziano, Frank M. (with Dwyer)
Transfer Factor, Clinical Enigma (First of Two Parts) xii 751
Grendon, David A.
Hospitals and Health Care, Commission on
(Commentary) ... iii 163

H

Hale, Mahlon S.
Staphylococcus Sepsis, Factitious Contributions
to a (Medical Grand Rounds from UConn,
Irwin H. Lepow) ... vi 353
Halper, Thomas
Physician's Dual Mandate from Society (Humanistic
Studies in Medicine, Stuart F. Spicker) ... v 305
Hamaty, Daniel (with Adler, Brown, Jr. and Potts)
Rehabilitation Efforts in an Amputee
Population, Evaluation of ... x 614

Hankin, Edwin
Cardiac Monitoring, Ambulatory .... vi 341
Harrison, Stewart H.
Rheumatoid Arthritis of the Hand .... iv 199
Holder, Angela R.
Minor's Right to Consent to Medical Treatment, The .... ix 579
Horanieh, Youssef (with Patel and Mannix, Jr.)
Liver, Pyogenic Abscess of the .... v 276
Howard, Dick (with Jarrett)
Connecticut Commission on Hospitals and Health Care .... ii 105
Hyde, Fred
Hospitals Seek Repair of Commission Legislation, Connecticut, (Commentary) .... iii 167

I

Ierodiaconou, John (with Marjani and Dunn)
Juxta Renal Aortic Occlusive Disease, Surgical Treatment of .... x 607
Immordino, Peter A.
Intussusception in Children .... ii 76

J

Jarrett, James E.
Connecticut Commission on Hospitals and Health Care ii 105
Jodaitis, Ellen
Windham Hospital and the Community it Serves .... xii 765

K

Keller, Florence (Mahoney)
Human Fetus, The Nature and Extent of Research Involving the .... iv 227
Kerstein, Morris D. (with LiCalzi)
Lymphedema, An Overview .... viii 485
Kerstein, Morris D. (with Zimmer, Dugdale and Lerner)
Rehabilitation in Lower Extremity Amputees, The Delays in the .... ix 549
King, Stewart A.
Ileostomy, Enteritis and the Continent .... viii 477
Kinsella, J. Kevin (with Africano)
Alcohol Patient, Emergency Care and Evaluation of the (First of Two Parts) (Second of Two Parts) .... x 655, xi 729
Kinsella, J. Kevin
Alcohol Treatment Services in Connecticut Hospitals .... v 299
Kirchner, John A. (with Sasaki)
Pharyngeal Paresis, Unilateral .... vi 345
Knowlton, Arthur H. (with Percarpio)
Bowel Carcinoma, Palliative Irradiation in Large .... xi 691
Kosarussavadi, Boonsri (with Barash)
Respiratory Failure in the Surgical Patient, Acute .... ii 73
Krizek, Thomas J. (with Finseth)
Free Flap Transfer in Reconstructive Surgery .... x 610

L

Lakhani, Usha
Pneumococcal Osteomyelitis and Arthritis in an Infant viii 479
Langou, Rene A.
Angina Pectoris, Surgical Management of Unstable .... vi 337
Langou, Rene A. (with Wiles)
Coronary Surgery for Patients with Angina Pectoris ... vii 405
Leach, Charles N., Jr. (with Scopetta)
Cardiac Rehabilitation, The New Britain Program .... v 270
Lee, Richard V. (with Risser)
Syphilis in Connecticut, A case of Fatal .... viii 470
Lee, Richard V. (with Mangi)
Trichinosis in Connecticut, A Family Outbreak of .... iii 136
Lepow, Irwin H.
Medical Grand Rounds from UConn..... iii 151, v 293, vi 353, ... vii 495, ix 559
Lerner, Aaron B (with Nordlund)
Melanomas, Fascinating Tumors .... vii 414
Lerner, Emanuel (with Kerstein, Zimmer and Dugdale)
Rehabilitation in Lower Extremity Amputees, The Delays in the .... ix 549
Levine, Joel B.
Cirrihosis, Primary Biliary (Medical Grand Rounds from UConn, Irwin H. Lepow) .... v 293
LiCalzi, Luke (with Kerstein)
Lymphedema, An Overview .... viii 485
Lopez, Jose A. (with Burd and Sacks)
Ectopic ACTH-MSH Production .... xii 759
Louri, Reginald S.
Mental Health, Polygamous State of .... i 37
Lowenstein, Mitchell (with Weinstein, Urman and Abeles)
Chondrocalcinosis—Pseudogout Syndrome, The .... xi 693
Luria, Sidney B. (with Yusuf, Marjani and Dunn)
Lung Carcinoma, Spontaneous Pneumothorax as a Presenting Feature of Primary .... iv 210
Lytle, Glenn H. (with Goldenberg)
Cecal Hematoma .... xii 755

M

Mahoney, Maurice J.
Fetal Research, Ethical Considerations in .... ii 85
Mahoney, Maurice J.
Human Fetus, The Nature and Extent of Research Involving the .... iv 227
(Abstracted by Florence Keller)
Mangi, Richard J. (with Lee)
Trichinosis in Connecticut, A Family Outbreak of .... iii 136
Mannix, Henry, Jr.
Hyperparathyroidism, Current Surgical Management of iii 133
Mannix , Henry, Jr. (with Horanieh and Patel)
Liver, Pyogenic Abscess of the .... v 276
Marjani, Massoud A. (with Ierodiaconou and Dunn)
Juxta Renal Aortic Occlusive Disease, Surgical Treatment of .... x 607
Marjani, Massoud A. (with Yusuf, Luria and Dunn)
Lung Carcinoma, Spontaneous Pneumothorax as a Presenting Feature of Primary .... iv 210
Mason, Edward
Sex Counselor, The Physician as .... iii 159
Massey, Robert U.
Medical Education, Cost, Quality and (Medical Grand Rounds from UConn, Irwin H. Lepow) .... ix 559
Matthew, Sister Ann (with Fischer, Russo and Conway)
"PAP" Smear Hospital Screening, Nurse-Run .... iii 143
Merav, Avraham (with Robinson)
Informed Consent, Recall by Patients Tested Postoperatively .... iv 223
Mukerji, M.J., (with Wawro and Deren)
Breast Cancer, Bilateral Adrenalectomy for Advanced Female .... ii 67

Mundy, Gregory R. (with Canalis and Raisz)
Calcium and the Kidney, Renal Osteodystrophy and Renal Calculi (Fifth of Five Parts) .... iii 205
Mundy, Gregory R. (with Canalis and Raisz)
Hypercalcemia, Diagnosis and Therapy (Third of Five Parts) .... i 16
Mundy, Gregory R.
Hypercalcemia, The Pathogenesis and Therapy of a Case of Malignant (Medical Grand Rounds from UConn, Irwin H. Lepow) .... iii 151
Mundy, Gregory R. (with Canalis and Raisz)
Paget's Disease of Bone, Recent Advances in Therapy (Fourth of Five Parts) .... ii 79
Munechika, Hirotsuga (with Rothman)
Computerized Tomography in the Evaluation of an Abdominal Inflammatory Mass.................................... xi 727

Mc

McCullough, William J.
Civil Commitment in Connecticut, Public Act 77-595... xi 705
McDermott, Walsh
Medical Care, Future of General .... xii 796
McGinn, Richard C. (with Grannum and Reichenbach)
Vaginal Evisceration Following Total Abdominal Hysterectomy .... vii 410

N

Netsky, Martin G.
Dying in a System of "Good Care", Case Report and Analysis.. i 33
Neumann, Hans H.
Slow Virus Diseases.. xii 756
Newton, Lisa H.
Healing of the Person, the (Humanistic Studies in Medicine, Stuart F. Spicker)... x 641
Nordlund, James J. (with Lerner)
Melanomas, Fascinating Tumors................................. vii 414
Nystrom, J. Scott (with Viola)
Cancer, Adjuvant Treatment of.......................... v 265, vi 333

O

O'Loughlin, John M.
Asthma, An Up-to-Date Look at an Old Problem........ ix 537

P

Patel, Suresh (with Horanieh and Mannix, Jr.)
Liver, Pyogenic Abscess of the....................................... v 276
Percarpio, Bernard (with Knowlton)
Bowel Carcinoma, Palliative Irradiation in Large.......... xi 691
Pet, Donald
Marihuana, Current and Recurrent Issues in Connecticut... ii 91
Pierce, John A.
Scoliotics, Pulmonary Evaluation of .... v 280
Potts, Harriet (with Adler, Hamaty and Brown, Jr.)
Rehabilitation Efforts in an Amputee Population, Evaluation of .... x 614

R

Raisz, Lawrence G. (with Mundy and Canalis)
Calcium and the Kidney, Renal Osteodystrophy and Renal Calculi (Fifth of Five Parts)... iii 205
Raisz, Lawrence G. (with Canalis and Mundy)
Hypercalcemia, Diagnosis and Therapy (Third of Five Parts) i 16
Raisz, Lawrence G. (with Canalis and Mundy)
Paget's Disease of Bone, Recent Advances in Therapy (Fourth of Five Parts) .... ii 79
Regan, William A.
Surgeon Doesn't Want Counts, What If The............... viii 513
Reichenbach, Alfred E. (with McGinn and Grannum)
Vaginal Evisceration Following Total Abdominal Hysterectomy .... vii 410
Rescher, Nicholas
Health-Care Services, Ethical Issues Regarding the Delivery of (Humanistic Studies in Medicine, Stuart F. Spicker) viii 501
Riddick, Daniel H. (with Voytovich)
Infertility, Acquired Renal Concentrating Defect Following Demeclocycline Therapy for .... xi 684
Risser, William L. (with Lee)
Syphilis in Connecticut, A Case of Fatal.................... viii 470
Robinson, George (with Merav)
Informed Consent, Recall by Patients Tested Postoperatively .... iv 223
Roll, G. Frederick
Drug Regulation Overdue, Reform in.............................. i 27
Rothman, Stephen L.G. (with Barry)
Computerized Tomography, The First Line of Investigation in Cranial Trauma................................. xii 763
Rothman, Stephen L.G. (with Munechika)
Computerized Tomography in the Evaluation of an Abdominal Inflammatory Mass................................... xi 727
Rowett, Dale (with Zavod, Damjanov and Baldwin)
Renal Vein Thrombosis .... viii 473
Roy, William R.
Medical Practice, A View of the Future .... v 285
Rubenstein, Marc A. (with Zonana and Crane)
Civil Commitment Reform in Connecticut..................... xi 709
Russo, Dorothy W. (with Fischer, Matthew and Conway)
"PAP" Smear Hospital Screening, Nurse-Run.............. iii 143

S

Sacks, Kenneth, L. (with Lopez and Burd)
Ectopic ACTH-MSH Production .... xii 759
Sasaki, Clarence T. (with Kirchner)
Pharyngeal Paresis, Unilateral .... vi 345
Sasaki, Clarence T. (with Yue)
Sinusitis, Intracranial Complications of .... ii 70
Sataline, Lee (with D'Angelo)
Oculopharyngeal Dystrophy, Hereditary .... vii 412
Schapira, Max (with Stern and Frost)
Subclavian Vein Cannulation, Complications and Pitfalls of, An Update .... iii 140
Scoppetta, Daniel J. (with Leach, Jr.)
Cardiac Rehabilitation, The New Britain Program......... v 270
Seashore, John H.
Biliary Atresia, Hepatic Portoenterostomy for................... i 1
Seashore, Margretta Reed
Genetic Disease, New Developments in Screening for (Third of Six Parts).. iii 145
Slaby, Andrew E. (with Tancredi)
Mentally Ill, Releasing the, Justice or Irresponsibility.. vii 429

Smith, Stephen R.
  Preceptorships and Medical Education, (First of Two Parts) (Second of Two Parts)........ vi 362, x 647
Spicker, Stuart F.
  Humanistic Studies in Medicine. v 305, vi 357, viii 501, x 641
Stern, Wilhelm Z. (with Schapira and Frost)
  Subclavian Vein Cannulation, Complications and Pitfalls of, An Update........ iii 140
Strauss, Bernard V.
  Patient, Caring for the........ iv 219
Strauss, Bernard V.
  Psychiatric Consultant, When and How to Use a........ x 626
Sulavik, Stephen B. (with Godar)
  Respiratory Distress Syndrome, Adult (Medical Grand Rounds From UConn, Irwin H. Lepow)........ viii 495

T

Tancredi, Laurence R. (with Slaby)
  Mentally Ill, Releasing the, Justice or Irresponsibility.. vii 429
Thomas, Agnes (with Affleck)
  Edelin Decision Revisited........ x 637
Tilson, John Q., Esq. (with Eisner)
  Consent, Manual on Informed, Connecticut Hospital Association........ ii 99
Toulmin, Stephen
  Ethical Safeguards in Research........ iv 235

U

Urman, Jeffrey D. (with Weinstein, Abeles and Lowenstein)
  Chondrocalcinosis, Pseudogout Syndrome, The........ xi 693

V

Viola, Michael V. (with Nystrom)
  Cancer, Adjuvant Treatment of........ v 265, vi 333
Viseltear, Arthur J.
  Medical Manpower and Public Policy, A Short History of P.L. 94-484........ ix 565
Voytovich, Anthony (with Riddick)
  Infertility, Acquired Renal Concentrating Defect Following Demeclocycline Therapy for........ xi 684

W

Wabrek, Alan J. (with Wabrek)
  Ejaculation, Premature........ iv 214
Wabrek, Alan J. (with Wabrek)
  Impotence, A Case Report........ xii 761
Wabrek, Carolyn J. (with Wabrek)
  Ejaculation, Premature........ iv 214
Wabrek, Carolyn J. (with Wabrek)
  Impotence, A Case Report)........ xii 761
Wallach, Gert
  Influenza Epidemic of 1918/1919, The Waterbury........ vi 349
Wawro, N. William (with Mukerji and Deren)
  Breast Cancer, Bilateral Adrenalectomy for Advanced Female........ ii 67
Weinstein, Arthur (with Urman, Abeles and Lowenstein)
  Chondrocalcinosis, Pseudogout Syndrome, The........ xi 693
Wiles, John C. (with Langou)
  Coronary Surgery for Patients with Angina Pectoris... vii 405
Willis, Gregory (with Bodine)
  Countersuits in Spurious Medical Malpractice Claims. xii 771
Wright, Hastings K.
  Colo-Rectal Cancer, Recent Trends in Surgery for........ xi 689

Y

Yue, Agnes (with Sasaki)
  Sinusitis, Intracranial Complications of........ ii 70
Yusuf, M. Farouk (with Luria, Marjani and Dunn)
  Lung Carcinoma, Spontaneous Pneumothorax as a Presenting Feature of Primary........ iv 210

Z

Zavod, Robert (with Rowett, Damjanov and Baldwin)
  Renal Vein Thrombosis........ viii 473
Zimmer, Howard (with Kerstein, Dugdale and Lerner)
  Rehabilitation in Lower Extremity Amputees, The Delays in the........ ix 549
Zonana, Howard V. (with Rubenstein and Crane)
  Civil Commitment Reform in Connecticut........ xi 709

The 1977 Roster

of the

CONNECTICUT STATE MEDICAL SOCIETY

and the

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Reference Material for Practicing Physicians

- CSMS Membership
- Life Membership Requirements
- The House of Delegates
- The Council
- Medical Ethics
- Renewal of Medical License
- Change of Address
- Directory of the State Dept. of Health
- Available Laboratory Services
- Poison Control Centers
- Staff of CSMS
- Medical Assistance Program
- Department of Mental Health
- Department of Children and Youth Services
- Regulations Concerning:
  - Reportable Diseases
  - X-Ray Devices
  - Controlled Substances
  - Prescriptions
- Medic Alert Foundation
- CSMS Sections

Supplement to
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CONNECTICUT STATE MEDICAL SOCIETY
Volume 41, Number 8

August 1977

INDEX

Reference Material for Practicing Physicians

Staff of CSMS 3
CSMS Membership 3
The House of Delegates 4
The Council 4
Medical Ethics 5
Renewal of Medical License 6
Change of Address 6
Directory of the State Dept. of Health 7
Available Laboratory Services 7
Medical Assistance Program 7
Medicare Part B 8
Department of Mental Health 8

Regulations Concerning:

- Reportable Diseases 9
- Controlled Substances 10
- Controlled Drug List 13
- X-Ray Devices 6

Medic Alert Foundation 15
Department of Children and Youth Services 14
Poison Control Centers 15

Roster of Officers and Committees

Officers 16
Committees Elected by the House of Delegates 17
Chairmen of CSMS Sections 22

Roster of Members

Alphabetical Listing of Towns Designating County Locations 24
Geographical Listing 26
- Fairfield — Officers and Members 26
- Hartford — Officers and Members 36
- Litchfield — Officers and Members 47
- Middlesex — Officers and Members 49
- New Haven — Officers and Members 50
- New London — Officers and Members 60
- Tolland — Officers and Members 62
- Windham — Officers and Members 63

Alphabetical Listing 65

Roster of Members of Women's Auxiliary to the Society

Officers 100
Geographical Listing 100
- Fairfield 100
- Hartford 101
- Litchfield 105
- Middlesex 105
- New Haven 106
- New London 108
- Windham 109

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CSMS MEMBERSHIP

An exact statement of membership requirements appears in the Bylaws of the Connecticut State Medical Society.

Active Members:

Active membership shall be limited to those members of component associations who are certified to the Executive Director of The Society as entitled to exercise all rights of membership in their component associations including the rights to vote and hold office. A physician eligible for active membership in The Society becomes an active member of The Society upon receipt by The Society of annual dues, which are established annually by the House of Delegates.

Associate Members:

Individuals interested in the science of medicine and public health, but are not licensed to practice medicine in the State of Connecticut may apply for associate membership in The Society. Once elected, an associate member may attend meetings, serve on committees, present papers before The Society, but may not vote or hold elective office.

Honorary Members:

Eminent physicians may be made honorary members by a majority vote of the House of Delegates. Honorary members may not vote or hold office and are not expected to pay dues.

Life Members:

Any member of The Society who has been an active member of The Society or of the American Medical Association for thirty-five consecutive years or who has reached his sixty-fifth birthday anniversary and has been an active member of The Society or of the American Medical Association for fifteen or more years, or any active member of The Society who becomes totally and permanently disabled shall be eligible for life membership. A physician eligible for life membership may apply for such membership to the Executive Director of The Society and shall become a life member on approval by the Council. Life members shall not be subject to dues or assessments but shall be accorded all the rights and privileges of active membership in The Society including the rights to vote and hold office.

Exemption from payment of dues for Life Members shall become effective on January 1 of the year following the thirty-fifth year of membership or of the anniversary year of their sixty-fifth birthday, whichever is applicable.

Student Members:

Any bona fide medical student in the State of Connecticut or any Connecticut resident attending an out of state medical school may become a student member of The Society. Physicians, not licensed to practice medicine in Connecticut, who are serving as interns and residents in Connecticut hospitals may obtain student membership. Student members file special applications for membership to the Council. Student members may not vote or hold office and are not required to pay dues.

Members who become inactive or are expelled or suspended from a county association will be placed in the same category with The Society.

THE HOUSE OF DELEGATES

Powers and Duties:

The House of Delegates is the ultimate legislative and policy-making body of the Society and assumes primary responsibility for the management of the affairs of the Society. As such, it elects the Society's officers, boards and committees, formulates the bylaws, approves budgets and assesses membership dues.

Composition:

The membership of the House consists of the delegates elected by the component county medical associations (one delegate for each thirty-five members or fraction thereof), the members of the Council, and the past presidents of the Society, ex-officio and without vote. All members of the House must have been members of the Society for at least two years immediately prior to being seated.

Meetings:

The House of Delegates holds two regular meetings each year, one in the fall and one in the spring. Special meetings of the House may be called by the Speaker on written requests of twenty-five or more delegates or by a majority of the voting members of the Council. At special meetings, no business other that that stipulated in the call for the meeting may be considered. Meetings of the House of Delegates are open to all members who wish to attend as observers.

Introduction of Resolutions:

Resolutions must be received in writing at the office of the Executive Director not later than thirty days before the date scheduled for the convening of the House in order to be considered as regular business. Resolutions presented later than the deadline may be considered if accepted by a majority vote of the House.

Referendum:

A referendum on any issue may be conducted among the members of the Society, if approved by a two-thirds vote of the delegates. The majority vote of those members responding to the referendum shall determine the question and be binding on the House of Delegates.

THE COUNCIL

Powers and Duties:

The Council is granted by the House of Delegates all powers necessary to act as the executive and administrative body of the Society while the House is not in session.

Composition:

The Council consists of the general officers of the Society, any member who is serving as a general officer of the American Medical Association, and the Councilors and Associate Councilors elected by the component county medical associations.

Meetings:

Under normal circumstances the Council meets at monthly intervals throughout the year. On occasion, the Council may hold additional meetings for the purpose of considering, or completing action on, matters of special importance. Meetings other than those scheduled by consent of the Council may be called by the Chairman or upon petition of three members of the Council.

Procedure:

As with the House of Delegates, any member of the Society or any group of members may submit matters to the Council for consideration. Such communications are to be addressed in writing to the Chairman of the Council care of the Society's headquarters, 160 St. Ronan Street, New Haven, and will be placed on the agenda of the earliest meeting possible following receipt. In most instances, the decision of the Council is equivalent to a decision by the House of Delegates. However, in certain instances, the Council may elect to transmit the matter, with recommendations, to the House of Delegates for final disposition.

MEDICAL ETHICS

The Bylaws of the Connecticut State Medical Society state that "the Principles of Medical Ethics of American Medical Association shall govern the conduct of members in their relations to each other and to the public".

PREAMBLE: These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public.

SECTION 1: The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

SECTION 2: Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments.

SECTION 3: A physician should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle.

SECTION 4: The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

SECTION 5: A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

SECTION 6: A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

SECTION 7: In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient.

SECTION 8: A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.

SECTION 9: A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

SECTION 10: The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsbilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community.

ANNUAL RENEWAL OF MEDICAL LICENSES

Section 19-45(b) of the Connecticut statutes requires renewal of medical licenses annually during the month of January. An IBM application is sent at the end of December. The registration fee is $160. There is no pro-rating.

Public Act No. 77-647 provides for a registration fee of $20 for Connecticut-licensed physicians who reside and practice outside of Connecticut. This act is effective October 1, 1977.

No fee is required of practitioners in military service or retired, but there is no exemption for anyone from the registration requirement. Every one must register. The penalty for late registration is $50.

Registration is handled through the State Department of Health, 79 Elm Street, Hartford, Connecticut 06115.

CHANGE OF ADDRESS

Practitioners are required to report to the State Department of Health within thirty days any change of address for his or her office and/or residence. (Section 19-46)

REGISTRATION OF X-RAY DEVICES USED FOR DIAGNOSIS AND THERAPY

Connecticut statutes require that the owner of any device or devices emitting x-rays which are used for diagnostic and therapeutic purposes must be registered with the State Department of Environmental Protection, State Office Building, Hartford, Connecticut 06115. Owner, according to statute, means any person or organization having by the law the administrative control of the x-ray device or devices.

Registrations at the present time must be renewed biennially during the month of April in the even-numbered years. The fee at each location is fifteen dollars for one x-ray device, five dollars for the second device, and one dollar for each additional x-ray device registered by one owner.

DIRECTORY OF KEY NAMES AND ADDRESSES FOR THE STATE DEPARTMENT OF HEALTH

Connecticut State Department of Health
79 Elm Street
Hartford, Connecticut 06115

Douglas S. Lloyd, M.D., M.P.H., Commissioner
Tel: 566-2279

Dennis F. Kerrigan, Acting Deputy Commissioner
Tel: 566-2197

Regional Offices and Directors:

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Northeastern Regional Office
P.O. Box 58
Mansfield Depot, CT 06251
Tel: 429-9395

James E. Stark, M.D.
Southeastern Regional Office
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Southwestern Regional Office
44 Old Ridgefield Rd.
Wilton, CT 06897
Tel: 762-8301

Michael Weber, D.D.S.
South Central Regional Office
Laurel Heights Hospital
Shelton, CT 06487
Tel: 735-9513

AVAILABLE LABORATORY SERVICES

Laboratory tests are provided by the Connecticut State Department of Health for the diagnosis and control of the following preventable diseases:

Anthrax—Cultures for anthrax bacilli.

Brucellosis (undulant fever)—Agglutination tests; blood and tissue cultures.

Diphtheria—Cultures; virulence tests.

Enteric Bacillary Infections—Stool examinations for Salmonellae, Shigellae and enteropathogenic Escherichia coli.

Food Infections and Food Poisoning—Tests for causative organism: Salmonellae, staphylococci, Clostridium perfringens, botulism, etc.

Fungus Infections (Mycoses)—Microscopic, cultural, and serologic examinations for pathogenic molds and yeasts.

Genetic Diseases—Blood examinations for Tay Sachs disease, Sickle Cell Anemia and Thalassemia.

Gonorrhea—Smears and cultures.

Inborn Errors of Metabolism—Filter paper blood specimens for phynylketonuria, galactosemia and hypothroidism screening; filter paper urine specimen for additional screening for phenylketonuria. Blood specimen for follow-up test for phenylketonuria. Blood and urine specimens for complete amino-acid screening.

Lead Poisoning—Blood specimen for blood lead determination. Capillary blood filter paper specimen for blood lead screening. Urine dipstick specimen for testing for ALA.

Leptospirosis—Serologic tests; cultures by arrangement.

Malaria—Blood smears and serological tests.

Mononucleosis—Serologic tests.

Parasitic Diseases—Stool examinations for amebae, other protozoa and helminths; vaginal smears for trichomonads; serologic tests; anal swabbings for pinworms.

Rabies—Fluorescent antibody and mouse inoculation tests.

Rickettsial Infections—Serologic tests on paired blood serums.

Staphylococcal Phage Typing—For epidemiological investigations.

Streptococcal Infections—Throat cultures; serologic grouping; streptococcal antibody tests.

Syphilis—VDRL flocculation tests; FTAABS tests: darkfield examination.

Toxoplasmosis—Serological tests.

Tuberculosis—Microscopic, cultural, biochemical and drug suceptibility tests.

Tularemia—Agglutination tests; cultures by arrangement.

Typhoid and Other Salmonella Infections—Agglutination tests; cultural tests on blood, feces and urine.

Vincent's Infections—Clinical smears.

Viral Infections—Serological tests on paired blood specimens and cultural tests for respiratory neurologic, enteric and exanthemous groups of viruses. Services include: Hepatitis B— antigen and antibody tests; Genetal Herpes—cultures.

SEND ALL SPECIMENS TO LABORATORY DIVISION, STATE DEPARTMENT OF HEALTH,
P.O. Box 1689, Hartford, Connecticut 06101

Containers for forwarding specimens can be obtained from local directors of health or directly from Laboratory Division, 10 Clinton St., Hartford, Connecticut 06101. Tel: 566-2536, 566-3971.

Unlisted cultures and serological tests may be available. Direct inquiries to 566-5723 (Bacteriology) or 566-4776 (Virology).

MEDICAL ASSISTANCE PROGRAM

The Connecticut Department of Social Services Provides for Payment of Medical Care Under the Title XIX Program for:

1. All recipients receiving money payments under the AFDC program.
2. Children committed to the Department of Children and Youth Services.
3. Medically needy children under 18 of parents receiving General Assistance.
4. Medically needy individuals under 21 years of age in the community.
5. Categorically needy and medically needy groups of aged, blind and disabled.

The State Funded Program, namely, Connecticut Assistance and Medical Aid Program for the Disabled provides medical care for disabled individuals, who do not meet the Title XVI or Title II definition of disability, but who meet the Department of Social Services definition of disability.

These programs are administered through the District and Sub-Offices of the Department of Social Services. Physicians are advised to contact the nearest office:

Hartford	100 Spring Street	566-5900	Stamford	1642 Bedford Street	357-8144
New Haven	294 Bassett Street	787-6181	Manchester	Suite 205, 364 West Middle Tpke.	647-1441
Bridgeport	434 State Street	384-1761			
Norwich	279 Main Street	889-2351	Danbury	405 Main Street	744-2494
Torrington	352 Main Street	482-5531	New Britain	233 Main Street	224-2601
Waterbury	79 Linden Street	578-1211	Meriden	139 Charles Street	238-6200
Middletown	117 Main Street Ext.	347-4411	Bristol	308 Main Street	583-1671

MEDICARE PART B

Medicare payments to physicians for specific services and procedures are based on each physician's "fee profile" developed from his past charges to Medicare patients, up to a maximum amount based on the 75th percentile of such fees for all the physicians in his charge area of the state.

Each physician's fee profile is updated annually in July. A physician can receive his own profile by making a written request to:

Professional Relations Department
Medicare Claims Department
Connecticut General Insurance Company
200 Pratt Street
Meriden, Connecticut 06450

Medicare benefits amount to 80% of the physician's actual fee, or 80% of the physician's fee profile for the procedure, or 80% of the "prevailing charge" (75th percentile) for his charge area, whichever is lowest. This benefit applies only after a $60 annual deductible has been met. This $60 and the remaining 20% "coinsurance" are the responsibility of the patient. Many Medicare patients have elected to purchase supplementary insurance such as "CMS 65" to cover the 20%. Relatively few are covered for the annual $60 deductible.

Under the Medicare law, doctors have the option in each case to "accept assignment" for charges to Medicare patients. By this, the physician agrees to accept as payment in full the Medicare benefit plus the 20% coinsurance and $60 deductible, if applicable. The advantage of accepting assignment is that the payment is made directly to the physician rather than to the patient for the Medicare benefit. The elderly would have no further liability beyond the coinsurance and deductible, if any. Assignments may be accepted selectively on a claim by claim basis.

Acceptance of the Medicare assignment is a service that a physician may offer voluntarily to his elderly patients of modest means, and is well in keeping with the time-honored principle of medical ethics that the physician's fee "be commensurate with the services rendered and the patient's ability to pay." Since such patients may often be reluctant to request special consideration out of pride or fear of rebuff, the physician's discreet sensitivity to these situations is of great importance. The right to refuse assignment can, of course, also be reserved under the present law.

DEPARTMENT OF MENTAL HEALTH

Physicians may obtain detailed descriptions of the various programs sponsored for the care of the mentally ill by contacting the State Department of Mental Health, 90 Washington Street, Hartford, Connecticut. Telephone 566-5270.

Department of Mental Health Facilities

Blue Hills Hospital
51 Coventry Street
Hartford, Conn. 06112
Phone: 566-4404

Cedarcrest Regional
Hospital
Newington, Conn. 06111
Phone: 666-4163

Conn. Mental Health Center
34 Park Street
New Haven, Conn. 06508
Phone: 772-3300

Connecticut Valley Hospital
Middletown, Conn. 06457
Phone: 347-5651

Franklin S. DuBois Day Treatment Center
49 Glenbrook Rd.
Stamford, Conn. 06902
Phone: 327-0620

Fairfield Hills Hospital
Newtown, Conn. 06470
Phone: 426-2531

Greater Bridgeport Community Mental
Health Center
1635 Central Ave.
Bridgeport, Conn. 06610
Phone: 384-1711

Norwich Hospital
Norwich, Conn. 06360
Phone: 889-7361

Whiting Forensic Institute
P. O. Box 70
Middletown, Conn. 06457
Phone: 347-8059

Inquiries concerning drug and alcohol dependency may also be made at the following locations:

Regional Outpatient Clinic
412 Orange St.
New Haven, Conn. 06511
Phone: 787-5931

Regional Outpatient Clinic
60 Guernsey Street
Stamford, Conn. 06901
Phone: 359-0710

Regional Outpatient Clinic
2 Holcomb St.
Hartford, Conn. 06112
Phone: 566-7330

Drug information is available at the:

CONNECTICUT MENTAL HEALTH CENTER
New Haven, Phone: 772-3300

CAPITOL REGION DRUG INFORMATION CENTER
179 Allyn Street, Suite 403, Hartford, Conn. 06102 Tel. 547-1300

Admission into state sponsored treatment facilities is defined in a number of Connecticut statutes. Specific information on the various statutes is available through the Public Information Officer of the State Department of Mental Health. (566-5270)

The following are some of the modes of admission to state facilities:

Informal—request made by patient; free to leave at any time. (Section 17-187(b).)

Voluntary—request made in writing by patient; may not be confined more than ten days after written request to leave. (Section 17-187(a).)

Informal or Voluntary for drug dependent person—inpatient treatment available; patient shall not be discharged for at least 90 days after admission. (Section 19-494.)

Physician's Emergency Certificate—issued by a physician; commitment for no more than 45 days. (Section 17-183.)

Court Commitments—certain courts may commit a person on grounds of insanity, mental retardation, alcoholism or drug dependency to ceretain facilities of the Department of Mental Health and/or to the Commissioner for treatment. (Section 54-40 and Section 17-185.)

REPORTABLE DISEASES

Section 19-13-A3 of the Connecticut statutes requires that a physician report to the local director of health within whose jurisdiction such patient is, the full name, age, address and occupation of the patient, with the name of the disease. The report may be made by telephone if practicable, but must also be submitted in writing within twelve hours after the recognition of the disease. Special forms for reporting this information are available from the State Department of Health.

Actinomycosis
Amebiasis
Anthrax
Botulism (see Food Poisoning)
Brucellosis (Undulant Fever)
Chancroid
Chickenpox (Varicella)
Cholera (Asiatic)
Conjunctivitis, infectious
  (all types except trachoma)
(During first 14 days of life
  reported as ophthalmia neonatorum)
(See ophthalmia neonatorum)
Diarrhea of Newborn
  Epidemic (Institutional)
Diphtheria (all forms)
Dysentery, Amebic (see Amebiasis)
Dysentery Bacillary (Shigellosis)
Encephalitis (all types)
Food Poisoning
  A. Staphylococcus
  B. Botulism
  C. Other
German Measles (Rubella)
Glanders
Glomerulonephritis (acute)
Gonorrhea
Granuloma Inguinale
Hemorrhagic Jaundice
  (see Leptospirosis)
Hepatitis, Infectious
  (Acute catarrhal jaundice)
Hepatitis, Serum
Histoplasmosis
Hookworm Infection
Impetigo of the Newborn
  (Pemphigus neonatorium Institutional)
Influenza
Lead Poisoning—(Abnormal body
  burden of lead)
Leprosy (Hansen's disease)
Leptospirosis (Including
  Hemorrhagic Jaundice and
  Weil's disease)
Lymphogranuloma Venereum
  (Inguinale)
Malaria
Measles (Rubeola)
Meningitis
  A. Meningococcal and
    Meningococcemia
  B. Hemophilus Influenzae
  C. Other Types
Mononucleosis Infectious
  (Glandular fever)
Mumps (Infectious parotitis)

Ophthalmia Neonatorum
  (Includes any infection of the babies' eyes during the first 14 days of life)
Paratyphoid Fever
Pertussis (Whooping Cough)
Plague
Poliomyelitis
Psittacosis (Ornithosis)
Q Fever
Rabies (in humans)
Rheumatic Fever
Rickettsialpox
Ringworm of the Scalp (Tinea Capitis)
Rocky Mountain Spotted Fever
Salmonella Infections
  1. Paratyphoid syndrome
  2. Gastroenteritis
  3. Other Types
Scarlet Fever (see Streptococcal Infections, Respiratory)
Smallpox (Variola minor and Variola major)
Streptococcal Infections Respiratory (including Scarlet Fever)
Staphylococcal Infection
  A. Insti. Outbreaks
  B. Under 6 weeks age
Streptococcal Infections (Other than respiratory)
  A. Erysipelas
  B. Puerperal Infection
Syphilis
Tetanus
Trachoma
Trichinosis
Tuberculosis, Other Forms
Tuberculosis, Pulmonary
Tularemia
Typhoid Fever
Typhus Fever (Epidemic and Endemic)
Undulant Fever (Brucellosis)
Whooping Cough (Pertussis)
Yellow Fever

Diseases Reportable Directly To State Department of Health

Epilepsy

Diseases Reportable Directly To State Department of Labor

Occupational Diseases

CONDENSED REGULATIONS FOR PRESCRIBERS CONCERNING CONTROLLED SUBSTANCES

The following information on controlled substances, as they relate to practicing physicians, has been condensed from various state and federal sources and has been prepared by the Joint Medical-Pharmaceutical Committee of the Connecticut State Medical Society and the Connecticut Pharmaceutical Association and by the Drug Control Division of the Connecticut Department of Consumer Protection.

Information Sources

Literature on controlled substances, dangerous drugs, drug legislation and drug abuse may be obtained by contacting:

Drug Enforcement Agency
450 Main Street
Room 628E
Hartford, Conn. 06103 (244-3230)

or

Drug Control Division
Department of Consumer Protection
State Office Building, Room G37, 165 Capitol Ave.
Hartford, Conn. 06115 (566-4490)

Federal Registration and Renewal Requirements

Practicing physicians involved with either the purchasing, the administering, the dispensing or the prescribing of controlled substances must file a controlled substances registration form (B.N.D. 224) with the Department of Justice, Drug Enforcement Agency, P. O. 28083, Central Station, Washington, D. C. 20005. Each physician who files such a form will be issued a seven digit D.E.A. number. Connecticut physicians should check all six boxes on the form under "2. Drug Schedules".

A renewal application must be filed each year. A $5.00 annual fee must accompany each application. Failure to register annually will make a physician ineligible to purchase, to administer or to prescribe controlled drugs. The expiration date will not be uniform for all physicians in the state. The Federal renewal forms must be filed 45 to 60 days before the expiration date which is printed on the D.E.A. forms which will be mailed to each physician. A complete and accurate inventory of all controlled drugs must be taken upon original registration. Thereafter, a biennial inventory should be taken on May 1 of each second year and filed with other drug records for three years.

State Registration Requirements

Starting on January 1, 1978 and thereafter, physicians who wish to prescribe, administer, distribute, or dispense any controlled substance must also obtain a certificate of registration issued by the Commissioner of Consumer Protection before they engage in the above mentioned activities. This certificate is required in order to obtain a federal D.E.A. registration.

Using the following schedule physicians will be required to register in the month which corresponds to their last name. The registration fee will be $10.

Month	First Letter of Name
January	M
February	S
March	L
April	Q, R
May	U, V, W, X, Y, Z
June	A, D
July	B
August	C, E
September	F, G
October	H, N
November	I, T
December	J, K, O, P

Examples: Dr. *J*ones will register in the month of December 1978, Dr. Smith in the month of February 1978, Dr. *B*rown in the month of July 1978.

An explanatory letter and the registration application will be mailed to each physician in the month prior to his required registration month. Failure to register with the state will void the physician's federal D.E.A. permit.

Prescribing, Purchasing and Dispensing Requirements

The D.E.A. number must appear on each prescription blank in such a way that it can not be altered. Generally speaking, controlled drugs are all narcotics, amphetamines, barbiturates and other potent drugs having a potential for abuse as defined under state and federal laws. Stock packages of controlled drugs bear the capital letter "C" with a Roman numeral II —, III — IV — or V on the label to identify their controlled drug schedule. Drugs with higher abuse potential are placed in the II category. Some examples of commonly prescribed drugs in each of these categories are given in Appendix I.

If a practitioner engages in purchasing and dispensing any controlled drugs he is required to keep a record of all controlled drugs received from *all* sources (including samples) and dispensed by him. The record should indicate the date of receipt, the name and address of the person from whom received, and the kind and quantity of drugs received. Dispensing records must include the date, the name and address of the person to whom the drugs were dispensed, and the kind and quantity of drugs dispensed. Each record must be separately maintained, kept readily available and on hand for *three years*. The records may not be kept in code or in a foreign language. Schedule II substances can only be purchased on official D.E.A. forms from a licensed wholesaler or manufacturer. Other schedule substances may be purchased from wholesalers or manufacturers without D.E.A. forms. In no instance should any controlled substance for office use be purchased using prescription blanks. This means that controlled substances may not be purchased from a pharmacy which does not possess a wholesaler's license.

Record-Keeping and Storage Requirements

Failure to keep any record required may result in a $500.00 fine and if the failure was a deliberate attempt to circumvent the law the fine may be $1,000.00, 30 days imprisonment or both.

Security regulations require that Schedule II drugs must be adequately protected and stored to prevent theft. If a practitioner's supply exceeds 15 units (see Appendix II) of Schedule II and III controlled drugs an approved safe must be obtained for their storage. In no case shall a practitioner's controlled drug stock, no matter how small in amount, be left in an unlocked cabinet, automobile or unattended.

Any loss, destruction or theft of narcotics shall be reported by all registrants within seventy-two hours to the Drug Control Division *and* to the Drug Enforcement Agency on form B.N.D. 106. Requests to destroy excess or undesired controlled drugs shall be made to the Drug Control Division, Department of Consumer Protection (566-4490).

The requirement under Section 19-443 to report drug dependent persons to the Commissioner of Health is now repealed, effective October 1, 1977.

Controlled Drug Prescriptions

All prescriptions for controlled drugs shall include:

1. the name and address of the patient, or the name and address of the owner of an animal and the species of the animal.
2. whether the patient is an adult or a child, or his specific age.
3. the compound or preparation prescribed and the amount thereof.
4. directions for use of the medication.
5. the name and address of the prescribing practitioner.
6. the date of issuance.
7. the D.E.A. number of the practitioner.

Prescriptions when written shall be written in ink or in indelible pencil or by typewriter. No duplicate, carbon or photographic copies and no printed or rubber-stamped orders shall be considered valid prescriptions. No prescription or order for any controlled substance issued by a practitioner to an inanimate object or thing such as "office" or "bag" or "emergency kit" shall be considered a valid prescription. Prescriptions for Schedule II substances shall be signed by the prescribing practitioner at the time of issuance and previously signed orders for such Schedule II substances shall not be considered valid prescriptions. Such prescriptions may be refilled, in the case of C-III, C-IV and C-V substances for a maximum of 5 times within a 6 month period when authorized by prescriber, preferably at the time of writing the prescription. The original prescription and refill authorization for C-III, C-IV and C-V substances may be telephoned to the pharmacy.

A prescription for a Schedule II drug cannot be given over the telephone. A prescription *signed* by the physician *must be in the pharmacist's hand* before a Schedule II drug can be dispensed. However, *IN AN EMERGENCY*, a pharmacist may accept a telephone prescription for *an emergency quantity* (the quantity should not exceed the actual amount required to supply the needs of the patient during a 72 hour period) of a Schedule II drug provided the pharmacist knows or confirms the identity of the prescriber, promptly reduces the oral prescription to writing on a prescription blank, includes all the information required on a Schedule II prescription except the prescriber's signature and immediately files such temporary Rx as required by law. In addition, the prescriber must forward to the pharmacist within 72 hours a signed prescription covering the emergency dispensing. The signed prescription must have written on its face "Authorization for emergency dispensing" and the date of the oral order. The pharmacist must attach the signed prescription to the temporary prescription he prepared and keep both on file as required by law. In the event the prescriber does not forward the signed prescription within 72 hours, the authority to dispense an oral emergency prescription is deemed void and the pharmacist must notify *D.E.A.* of the prescriber's failure to forward the written prescription.

An emergency is defined by D.E.A. as a situation where:

a. the immediate administration of the controlled substance is necessary; b. no alternative treatment is available and c. it is not reasonably possible for the prescriber to provide a written prescription prior to dispensing.

If the prescriber wishes to prescribe the Schedule II drug *beyond the emergency period,* (the time necessary for the prescriber to reasonably supply the signed prescription) he must write a *separate* prescription to cover that amount and it cannot be dispensed until the pharmacist has the signed prescription in hand.

APPENDIX I
CONTROLLED DRUG LIST

Schedule II: Written prescriptions signed by physician required before dispensing by pharmacist.

1. Narcotic:
    - APC with Demerol
    - Codeine
    - Demerol
    - Dilaudid
    - Hycodan
    - Leritene
    - Mepergan
    - Mepergan Fortis
    - Meperidine
    - Morphine
    - Cocaine
    - Numorphan
    - Pantopon
    - Percobarb
    - Percodan
    - Methadone
    - (Innovar) For Hospital Use
    - (Sublimaze) Use
2. Non-narcotic:
    - Amphetamine
    - Amobarbital
    - Amytal Sodium
    - Benzedrine
    - Desoxyn
    - Dexamyl
    - Dexedrine
    - Dextro-Amphetamine
    - Methamphetamine
    - Methaqualone
    - Methedrine
    - Nembutal
    - Parest
    - Pentobarbital
    - Quaalude
    - Ritalin
    - Secobarbital
    - Seconal
    - Tuinal
    - Amytal

Schedule III—IV—V: Oral prescription sufficient before dispensing by pharmacist.

1. Narcotic:
    - Actified-C Expectorant
    - Ambenyl Expectorant
    - APC with Codeine
    - Brown Mixture
    - Codempiral
    - Codesal
    - Copavin
    - Dimetane Expectorant-DC
    - Empirin Comp with Codeine
    - Fiorinal with Codeine
    - Hycodan
    - Hycomine
    - Lomotil
    - Nembudeine
    - Novahistine-DH
    - Novahistine Expectorant
    - Paregoric
    - Phenaphen with Codeine
    - Phenergan Expectorant with Codeine
    - Phenergan VC Expectorant with Codeine
    - Robitussin-AC Expectorant
    - Stokes Expectorant
    - Scotussin Forte
    - Terpin Hydrate with Codeine
    - Tussar—2
    - Tussend
    - Tussionex
    - Tylenol with Codeine

Note: Any combinations with codeine are controlled drugs, e.g., cough syrups or pain relievers.

2. Non-narcotics:
    - Alurate
    - Bacarate
    - Benzphetamine
    - Bontril
    - Butabarbatol
    - Buticaps
    - Butiserpazide
    - Butiserpine
    - Butisol
    - Butizide
    - Carbrital
    - Chardonna
    - Chloral Hydrate
    - Chlordiazepoxide
    - Chlorphentermine
    - Clonazepam
    - Clonopin
    - Clorazepate
    - Clortermine
    - Cylert
    - Dalmane
    - Darvon
    - Deprol
    - Diazepam
    - Didrex
    - Diethylprupion
    - Doriden
    - Equagesic
    - Equanil
    - Eskabarb
    - Ethobral
    - Fenfluramine
    - Fiorinal
    - Flurazepam
    - Harmonyl-N
    - Ionamine
    - Librium
    - Luminal
    - Mazindol
    - Mebaral
    - Mebutamate
    - Mediatric
    - Melfiat
    - Mephobarbital
    - Meprobamate
    - Miltown
    - Nembudonna
    - Nembugesic
    - Noctec
    - Noludar

Oxazepam
Paraldehyde
Pemoline
Phendimstrazine
Phenobarbital
Phentermine
Placidyl
Plegine
Plexonal
Pondimin
Prazepam
Pre-Sate
Propoxyphene
Sanorex
Serax
Somnos
Statobex
Tenjate
Tepanil
Tranxene
Trimstat
Trimtabs
Valium
Voranil

APPENDIX II

A controlled substance *unit* is determined according to the following formula:

one unit equals:

a. 100 tablets or capsules.
b. 1 pint (473 ml) of a liquid not intended for injection.
c. ⅛ ounce (3.58 grams) of a powder, crystal, flake or granule.
d. 1 multiple dose vial of an injectable.
e. 10 suppositories.
f. 10 single-dose ampules, tubexes, dosettes or other single-dose package forms for injection whether as powder or in solution.

DEPARTMENT OF CHILDREN & YOUTH SERVICES

The Department of Children and Youth Services was created by the Connecticut General Assembly in 1969 to deal with juvenile corrections and prevention of delinquency. Since then the responsibilities for social services (1974) and mental health care (1976) for children and youth have been transferred to the Department.

The Department operates Long Lane School in Middletown, the state training facility for delinquent boys and girls committed to the department by the Juvenile Court. Long Lane services include medical and clinical treatment, education, recreation, social services, vocational and job training. It purchases extensive aftercare programs to supervise the rehabilitation of youngsters in community treatment centers. These include group homes, residential schools, foster homes and other professionally supervised living arrangements.

Children's protective and social services are administered by the Department of Children and Youth Services under a purchase of services agreement with the Department of Social Services. The staff accepts and investigates suspected cases of child abuse and/or neglect and works with parents to try to reduce or eliminate the cause of referral. DCYS protective services for abused and/or neglected children include medical assistance, legal aid, family counseling and temporary emergency shelter at the DCYS child care study and receiving home in Warehouse Point, Connecticut. Services also may include the purchase of homemaker, child care and family planning services if not otherwise available. The Department cooperates with the Connecticut Child Welfare Association in providing protective services, including use of the CCWA Child Abuse Careline (1-800-842-2288) for receiving reports of suspected child abuse and/or neglect.

General Statutes 17-38 defines child abuse as physical injury or injuries inflicted by other than accidental means, or injuries at variance with the history given: maltreatment, including but not limited to malnutrition, sexual molestation; cruel punishment, or deprivation of necessary food, clothing or shelter. This Connecticut statute mandates a number of professional groups, including physicians, surgeons, resident physicians, interns, medical examiners and nurses, to report all cases of suspected abuse immediately to State or local police or to the Department of Child and Youth Services, to be followed *within 72 hours by a written report* (Form W-136). Any person mandated to report who fails to report may be fined up to five hundred dollars ($500). Anyone who in good faith reports suspected abuse is granted immunity from civil or criminal liability.

The law provides that any physician examining a suspected abused child has the right to keep such child in the custody of a hospital for up to 96 hours without parental consent. The Department of Child and

Youth Services maintains a confidential registry of suspected abused children, which is available at all times to mandated reporters. The expense for temporary care and custody shall be paid by the town.
The 1975 General Assembly made DCYS responsible for the diagnosis, care and treatment of mentally ill and/or emotionally disturbed children and youth. This program is conducted by psychiatric and related specialists at eight in-patient and out-patient facilities: High Meadows (Hamden), Albany Avenue Child Guidance Center (Hartford), Greater Bridgeport Mental Health Center (Bridgeport), the Adolescent Drug Rehabilitation Program (Meriden), the Children's Unit at Connecticut Valley Hospital (Middletown), and adolescent programs conducted by the Mental Health Department under contract with DCYS at Fairfield Hills (Newtown) and at Norwich and Connecticut Valley Hospitals. DCYS also partially funds a number of privately operated child guidance clinics. Plans are also being developed for the utilization of the recently acquired Undercliff Regional Mental Health Center in Meriden which will become a psychiatric hospital for children and adolescents in the fall of 1978.

MEDIC ALERT FOUNDATION

Physicians who receive inquiries concerning identification tags for individuals with medical problems which should be known in an emergency may wish to refer the inquiry to:

Medic Alert
Foundation Headquarters
Turlock, California 95380

Medic Alert — 236-3667
645 Farmington Avenue
Hartford, Conn. 06105

CONNECTICUT POISON INFORMATION CENTER

A. Cardoni, Director
UConn Health Center
Farmington, Conn. 06032

For Poison Control Information, Call This Number First:
674-3456 or 674-3457 (24 hour daily coverage)

The Connecticut Poison Information Center has been transferred from the State Department of Health to the UConn Health Center. 24 hour information service is now available at the above emergency numbers. The following hospitals are designated as Poison Treatment centers:

HOSPITAL POISON TREATMENT CENTERS IN CONNECTICUT

City	*Name and Address*	*Telephone*	*Director*
Bridgeport	Bridgeport Hospital Poison Control Center 267 Grant Street 06602	384-3566	Lyle Stotts, M.D.
	St. Vincent's Hospital Poison Control Center 2820 Main Street 06606	334-1081	Ramona Byard, M.D.
Danbury	Danbury Hospital Poison Control Center 95 Locust Avenue 06810	744-2300	Peter Pratt, M.D.
Middletown	Middlesex Memorial Hospital Poison Control Center 28 Crescent Street 06457	347-9471	Clarence W. Harwood, M.D. L. Annino, Ph.G.
New Britain	New Britain General Hospital Poison Control Center 100 Grand Street 06050	224-5672	Tim Marcham, R. Ph. Asst.
New Haven	The Hospital of St. Raphael Poison Control Center 1450 Chapel Street 06511	789-3464	S. Lande, M.D.
	Yale-New Haven Hospital Poison Control Center 789 Howard Avenue 06504	436-1960	Thomas F. Dolan, Jr., M.D. Allan Myers, M.D.
Norwalk	Norwalk Hospital Poison Control Center 24 Stevens Street 06852	838-3611	Melvin Orlins, M.D.
Waterbury	St. Mary's Hospital Poison Control Center 56 Franklin Street 06702	756-8351	Charles H. Audet, Jr., M.D.

THE CONNECTICUT STATE MEDICAL SOCIETY

160 ST. RONAN STREET
NEW HAVEN, CONNECTICUT 06511

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E. Tremain Bradley, 31 Stevens Street, Norwalk 06850	1/1/77-12/31/78
Alternate: Sidney L. Cramer, 21 Woodland Street, Hartford 06105	1/1/77-12/31/78
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Alternate: Guy W. Van Syckle, 30 Hospital Avenue, Danbury 06810	1/1/77-12/31/78

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Gioacchino Parrella, 2044 Bridgeport Ave., Milford 06460

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William A. Whalen, 150 Mansfield Ave., Willimantic 06226
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Elected by House of Delegates

EDUCATION

COMMITTEE ON CONTINUING MEDICAL EDUCATION

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Kurt A. Oster, 881 Lafayette St., Bridgeport 06603

Delegates to Council of New England State Medical Societies

President:
  Isadore H. Friedberg, 93 Market Sq., Newington 06111
President-Elect:
  Jerome K. Freedman, 1423 Chapel St., New Haven 06511
Kenneth F. Brandon, 128 North Oxford St., Hartford 06105
M. David Deren, 1260 Park Ave., Bridgeport 06604
G. S. Gudernatch, Main St., Sharon 06069
William M. Shepard, 64 Grove St., Putnam 06260

Delegates to Special Societies

To Connecticut Hospital Association: Chairman, Committee on Hospitals
  Charles E. Roh, 85 Jefferson St., Hartford 06106

To Connecticut Pharmaceutical Association: Chairman, Liaison Committee with Pharmaceutical Association
  William F. Van Eck, 300 Main St., East Haven 06512

To Connecticut State Dental Association: The President
  Isadore H. Friedberg, 93 Market Sq., Newington 06111

To Connecticut Nurses' Association: The President-Elect
  Jerome K. Freedman, 1423 Chapel St., New Haven 06511

Delegates to State Medical Societies

Maine:
W. Raymond James, 64A North Main St., Essex (D) 06426
Stuart Ragland, Jr., Smith Hill Rd., Colebrook (A) 06021

Massachusetts:
President-Elect
Jerome K. Freedman, 1423 Chapel St., New Haven (D) 06511
Vice President
Edward A. Kamens, 1305 Post Rd., Fairfield (A) 06430

New Hampshire:
Allyn B. Dambeck, 111 Hartford Tpke., Tolland (D) 06084
Guy W. Van Syckle, 30 Hospital Ave., Danbury (A) 06810

New Jersey:
Sidney L. Cramer, 21 Woodland St., Hartford (D) 06105
John J. Mendillo, 628 George St., New Haven (A) 06511

New York:
President
Isadore H. Friedberg, 93 Market Sq., Newington (D) 06111
President-Elect
Jerome K. Freedman, 1423 Chapel St., New Haven (A) 06511

Rhode Island:
Charles M. Krinsky, 27 Broad St., New London (D) 06320
Rudolph E. Klare, Route 169, East Woodstock (A) 06244

Vermont:
Edward A. Kamens, 1305 Post Rd., Fairfield (D) 06430
Frederick C. Barrett, 108 New London Tpke., Norwich (A) 06360

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Chairman: Edward R. Browne, Windham Community Memorial Hospital, Willimantic 06226
Secretary: Allan A. Brandt, 2047 Bridgeport Ave., Milford 06460

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President: Marjorie A. Purnell, 23 Davis Ave., Rockville 06066
Secretary: Frederick C. Barrett, 108 New London Turnpike, Norwich 06360

Section on Forensic Medicine

President: Daniel W. Benninghoff, Greenwich Hospital, Greenwich 06830
Secretary: G. S. Gudernatch, Main Street, Sharon 06069

Section on Gastroenterology

President: Robert Vogel, 291 Lambert Road, Orange 06477
Secretary: Raphael Schwartz, 92 Locust Avenue, Danbury 06810

Section on Internal Medicine

President: Saul S. Milles, 100 York St., New Haven 06511
Secretary: Arnold M. Koff, Avon Professional Building, Avon 06001

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President: Edwin H. Mulford, II, 5 Elmcrest Terrace, Norwalk 06850
Secretary: Donald W. Cooper, 350 Montauk Avenue, New London 06320

Section on Obstetrics and Gynecology

President: Philip C. Dennen, 134 Grandview Avenue, Waterbury 06708
Secretary: R. F. Jones, III, 100 Retreat Avenue, Hartford 06106

Section on Ophthalmology

Chairman: J. Clement Griffin, 12 Case St., Norwich 06360
Secretary: Stanislaw A. Milewski, 191 Main Street, Manchester 06040

Section on Orthopedics

Chairman: Martin Karno, 270 Montauk Avenue, New London 06320
Secretary: John D. Haugh, 140 Woodland Street, Hartford 06105

Section on Otolaryngology

President: Robert Rosnagle, 98 York Street, New Haven 06511
Secretary: Ronald J. Pimpinella, Litchfield Road, Torrington 06790

Connecticut Society of Pathologists

Chairman: William R. Bronson, Hartford Hospital, Hartford 06115
Secretary:

Section on Pediatrics

Chairman: Frederick J. Flynn, Newington Children's Hospital, Newington 06111
Secretary: Estelle Siker, State Department of Health, Hartford 06115

Section on Physical Medicine and Rehabilitation

President: Victor Sonnen, 59 Broad Brook Road, Enfield 06082
Secretary: Manual E. Mino, 119 Lantern Lane, Wethersfield 06109

Section on Proctology

President: Bernard J. Kaplan, 21 Woodland Street, Hartford 06105
Secretary: Sanford Savin, 2660 Main St., Bridgeport 06606

Section on Psychiatry

Chairman: Gerald H. Flamm, 1450 Chapel St., New Haven 06511
Secretary: Cyril Waynik, 60 Katona Dr., Fairfield 06430

Section on Pulmonary Diseases

President: Lester Krasnagor, 190 West Broad Street, Stamford 06902
Secretary: Arthur Kotch, Danbury Hospital, Danbury 06810

Section on Radiology

President: Carl W. Scheer, 335 Cook Ave., Meriden 06450
Secretary: Gerald L. Baker, 85 Jefferson Street, Hartford 06106

Section on Surgery

Chairman: William H. Curley, Jr., 3715 Main St., Bridgeport 06603
Secretary: Edward Dunn, Waterbury Hospital, Waterbury 06720

Section on Thoracic and Cardiovascular Surgery

President: Joseph P. Dineen, 299 Seymour Avenue, Derby 06418
Secretary: Allan L. Toole, 2 Church Street South, New Haven 06519

Section on Urology

President: Timothy F. Nolan, 49 Lake Avenue, Greenwich 06830
Secretary: Haik Kavookjian, Jr., 555 Newfield Ave., Stamford 06906

Connecticut Society of American Board Surgeons

President: Harry C. Briggs, 71 Spencer St., Winsted 06098
Secretary: Robert E. Dragon, 73 Cedar St., New Britain 06052

ALPHABETICAL LISTING OF TOWNS DESIGNATING COUNTY LOCATION

Town	*County*
Abington	Windham
Amston	New London
Andover	Tolland
Ansonia	New Haven
Ashford	Windham
Avon	Hartford
Baltic	New London
Bantam	Litchfield
Barkhamsted	Litchfield
Beacon Falls	New Haven
Berlin	Hartford
Bethany	New Haven
Bethel	Fairfield
Bethlehem	Litchfield
Bloomfield	Hartford
Bolton	Tolland
Bozrah	New London
Branford	New Haven
Bridgeport	Fairfield
Bridgewater	Litchfield
Bristol	Hartford
Broad Brook	Hartford
Brookfield	Fairfield
Brookfield Center	Fairfield
Brooklyn	Windham
Burlington	Hartford
Byram	Fairfield
Canaan	Litchfield
Canterbury	Windham
Canton	Hartford
Centerbrook	Middlesex
Central Village	New London
Chaplin	Windham
Cheshire	New Haven
Chester	Middlesex
Chestnut Hill	Windham
Clinton	Middlesex
Colchester	New London
Colebrook	Litchfield
Collinsville	Hartford
Columbia	Tolland
Cornwall	Litchfield
Cornwall Bridge	Litchfield
Cos Cob	Fairfield
Coventry	Tolland
Cromwell	Middlesex
Danbury	Fairfield
Danielson	Windham
Darien	Fairfield
Deep River	Middlesex
Derby	New Haven
Devon	New Haven
Durham	Middlesex
Eastford	Windham
East Granby	Hartford
East Haddam	Middlesex
East Hampton	Middlesex
East Hartford	Hartford
East Haven	New Haven
East Lyme	New London
Easton	Fairfield
East Norwalk	Fairfield
East Windsor	Hartford
East Woodstock	Windham
Ellington	Tolland
Elmwood	Hartford
Enfield	Hartford
Essex	Middlesex
Fairfield	Fairfield
Falls Village	Litchfield
Farmington	Hartford
Forestville	Hartford
Franklin	New London
Gales Ferry	New London
Georgetown	Fairfield
Gilman	New London
Glastonbury	Hartford
Glenbrook	Fairfield
Glenville	Fairfield
Goshen	Litchfield
Granby	Hartford
Greens Farms	Fairfield
Greenwich	Fairfield
Griswold	New London
Groton	New London
Guilford	New Haven
Haddam	Middlesex
Hadlyme	New London
Hamburg	New London
Hamden	New Haven
Hampton	Windham
Hawleyville	Fairfield
Hartford	Hartford
Hartland	Hartford
Harwinton	Litchfield
Hazardville	Hartford
Hebron	Tolland
Higganum	Middlesex
Huntington	Fairfield
Jewett City	New London
Kensington	Hartford
Kent	Litchfield
Killingly	Windham
Killingworth	Middlesex
Lakeville	Litchfield
Lebanon	New London
Ledyard	New London
Lisbon	New London
Litchfield	Litchfield
Long Hill	Fairfield
Lyme	New London
Madison	New Haven
Manchester	Hartford
Mansfield	Tolland
Mansfield Center	Tolland
Mansfield Depot	Tolland
Marble Dale	Litchfield
Marlborough	Hartford
Meriden	New Haven
Middlebury	New Haven
Middlefield	Middlesex
Middletown	Middlesex
Milford	New Haven
Monroe	Fairfield
Montville	New London
Moodus	Middlesex
Morris	Litchfield
Morris Cove	New Haven
Mount Carmel	New Haven
Mystic	New London
Naugatuck	New Haven
New Britain	Hartford
New Canaan	Fairfield
New Fairfield	Fairfield
Newfield	Middlesex
New Hartford	Litchfield
New Haven	New Haven
Newington	Hartford
New London	New London
New Milford	Litchfield
New Preston	Litchfield
Newtown	Fairfield
Niantic	New London
Nichols	Fairfield
Noank	New London
Norfolk	Litchfield
Noroton	Fairfield
North Branford	New Haven
Northford	New Haven
North Canaan	Litchfield
North Granby	Hartford
Northfield	Litchfield
North Haven	New Haven
North Madison	New Haven
North Stonington	New London
North Woodbury	Litchfield
Norwalk	Fairfield
Norwich	New London
Norwichtown	New London
Oakdale	New London
Oakville	Litchfield
Old Greenwich	Fairfield
Old Lyme	New London
Old Saybrook	Middlesex
Orange	New Haven
Oxford	New Haven
Pawtucket	New London
Plainfield	Windham
Plainville	Hartford
Plantsville	Hartford
Pleasant Valley	Litchfield
Plymouth	Litchfield
Pomfret	Windham
Poquonock	Hartford
Portland	Middlesex
Preston	New London
Prospect	New Haven
Putnam	Windham
Quaker Hill	New London
Redding	Fairfield
Ridgefield	Fairfield
Riverside	Fairfield
Rockfall	Middlesex
Rocky Hill	Hartford
Rockville	Tolland
Rowayton	Fairfield
Roxbury	Litchfield
Salem	New London
Salisbury	Litchfield
Sandy Hook	Fairfield
Saybrook	Middlesex
Saybrook Pt.	Middlesex
Scotland	Windham
Seymour	New Haven
Sharon	Litchfield

Town	*County*
Sherman	Fairfield
Shippan Pt.	Fairfield
Silvermine	Fairfield
Simsbury	Hartford
Somers	Tolland
Southbury	New Haven
South Coventry	Tolland
South Glastonbury	Hartford
Southington	Hartford
South Kent	Litchfield
South Manchester	Hartford
South Norwalk	Fairfield
Southport	Fairfield
South Windsor	Hartford
Sprague	Tolland
Springdale	Fairfield
Stafford Springs	Tolland
Stamford	Fairfield
Stepney Depot	Fairfield
Sterling	Windham
Stonington	New London
Storrs	Tolland
Stratford	Fairfield
Suffield	Hartford
Taconic	Middlesex
Taftville	New London
Terryville	Litchfield
Thomaston	Litchfield
Thompson	Windham
Thompsonville	Hartford
Tolland	Tolland
Torrington	Litchfield
Trumbull	Fairfield
Uncasville	New London
Union	Tolland
Union City	New Haven
Unionville	Hartford
Vernon	Tolland
Versailles	New London
Voluntown	New London
Wallingford	New Haven
Wapping	Hartford
Warehouse Pt.	Hartford
Warren	Litchfield
Washington	Litchfield
Waterbury	New Haven
Waterford	New London
Watertown	Litchfield
Westbrook	Middlesex
West Cornwall	Litchfield
West Hartford	Hartford
West Haven	New Haven
Weston	Fairfield
Westport	Fairfield
West Simsbury	Hartford
West Willington	Tolland
Wethersfield	Hartford
Willimantic	Windham
Willington	Tolland
Wilton	Fairfield
Winchester	Litchfield
Windham	Windham
Windsor	Hartford
Windsor Locks	Hartford
Winsted	Litchfield
Wolcott	New Haven
Woodbridge	New Haven
Woodbury	Litchfield
Woodmont	New Haven
Woodstock	Windham

ROSTER OF MEMBERS 1977

Fairfield County Association

President: Jack T. Orr, Danbury Hospital, Danbury 06810
Vice-President: Daniel W. Doctor, 129 King's Hwy, No., Westport 06880
Secretary: Ralph L. Parker, 881 Lafayette, Bridgeport 06603
Treasurer: H. David Frank, 114 State, Bridgeport 06603
Councilor: John J. McGarry, 36 Old King's Hwy, So., Darien 06820
Associate Councilors:
T. Peter Jameson, 18 Farview Ave., Danbury 06810
Edith M. Beck, 56 Lafayette Pl., Greenwich 06830
Executive Secretary: Mr. Leonard R. Tomat
Executive Office: 60 Katona Dr., Fairfield 06430
Annual Meeting, Second Tuesday in April
Semi-Annual Meeting, First Wednesday in October

BETHEL 06801

1974 Binnie, Hugh Sharp Polson, 236 Greenwood Ave.
1976 Shapiro, David, 155 Greenwood Ave.
1938 Trimpert, Albert Joseph, 8 Blackman Ave.
1976 Volpintesta, Edward Joseph, 155 Greenwood Ave.
1939 Wolfson, Dexter, 14 Grassy Plain

BRIDGEPORT

1974 Adefuin, Zosimo Adea, 1475 Barnum Ave. 06610
1965 Alexander, James Maurice, 50 Ridgefield Ave. 06610
1976 Ali, Sheikh M. Yousuf, 50 Ridgefield Ave. 06610
1932 Alpert, Max, 881 Lafayette 06603
1944 Amarant, Leo, 881 Lafayette 06603
1975 Ambrose, Paul, 2472 East Main 06610
1953 Anderson, Harry Brutus, 1239 Main 06604
1973 Armm, Milton F., 1438 Park Ave. 06604
1971 Auerbach, Sumner Robert, 50 Ridgefield Ave. 06610
1973 Bader, Lewis Martin, 881 Lafayette 06604
1968 Barrero, Ezequiel Fernandez, 401 Noble Ave. 06608
1941 Beck, Sidney Henry, 51 Golf View Ter. 06603
1974 Beres, Milan, 50 Ridgefield Ave. 06610
1970 Berkun, Sumner Gerald, 881 Lafayette Blvd. 06604
1956 Bernstein, Jerome, 340 Capitol Ave. 06606
1961 Berry, Robert W., 2075 North Ave. 06604
1969 Bersier, Andre Marc, 2660 Main 06606
1928 Biehn, Sidney Lister, 130 Pinepoint Dr. 06606
1946 Birney, Thomas Peter, 1984 Park Ave. 06604
1949 Blaney, Cyril Chandler, 3203 Main 06606
1952 Blank, Miriam Bennett, 420 Brooklawn Ave. 06604
1963 Blank, Victoria E., 3321 Park Ave. 06604
1935 Bogin, Maxwell, 340 Capitol Ave. 06606
1973 Boreyko, Christopher Joseph, 3715 Main 06606
1963 Borsos, Lajos A., 2660 Main 06606
1954 Bousa, Walter Shackley, 3163 Main 06606
1959 Bradley, Edward Grenelle, 50 Ridgefield Ave. 06610
1947 Braun, Rudolf, 525 Clinton Ave. 06605
1971 Bravo, Anthony John, 50 Ridgefield Ave. 06610
1975 Breyan, Nicholas Richard, 50 Ridgefield Ave. 06610
1941 Brier, Hyman David, 2574 Main 06606
1940 Brooks, Paul Lester, 1260 East Main 06608
1974 Brown, Paul Woodrow, St. Vincent's Hospital 06606
1955 Burke, William Harris, 1026 Park Ave. 06604
1969 Byard, Ramona Marie, St. Vincent's Hospital 06606
1943 Cacace, Vincent Anthony, 1438 Park Ave. 06604
1975 Calabrese, Carmine Timothy, 2660 Main 06606
1976 Calabrese, Patrick Richard, 50 Ridgefield Ave. 06610
1947 Camarda, Anthony L., 690 Clinton Ave. 06604
1968 Canter, Norman Michael, 50 Ridgefield Ave. 06610
1945 Capobianco, Arthur Paul, 508 Noble Ave. 06608
1962 Capodilupo, Vincent Michael, 754 Clinton Ave. 06604
1946 Cardone, Michael James, 2989 Main 06606
1974 Carolan, Patrick James, 3715 Main 06606
1932 Carroll, Philip Roger, Jr., 1131 Noble Ave. 06608
1976 Carroll, Richard Edwin, 340 Capitol Ave. 06606
1947 Caserta, Silvio Joseph, 880 North Ave. 06606
1976 Cavaliere, Michael John, 798 North Ave. 06606
1947 Cavaliere, Vincent J., 798 North Ave. 06606
1973 Chadda, Shashi K. B., St. Vincent's Hospital 06606
1975 Chinniah, Anton V., 50 Ridgefield Ave. 06610
1949 Chiota, Joseph A., 562 Boston Ave. 06610
1975 Choksi, Yogesh Harshadlal, 114 State 06604
1976 Choy, Octavio Gregorio, 50 Ridgefield Ave. 06610
1954 Cleaver, Robert S. Jr., 50 Ridgefield Ave. 06610
1976 Cocco, Thomas D., 388 Brooklawn Ave. 06604
1959 Cohen, Stanley Leonard, 1026 Park Ave. 06604
1952 Connell, Thomas Hilbert, Jr., 50 Ridgefield Ave. 06610
1976 Connolly, Joseph Forbes, 1785 Boston Ave. 06610
1959 Cook, William Henry, 2660 Main 06606
1967 Cooney, Gerald Evans, 3163 Main 06606
1977 Cooper, Everett Bruen, 2800 Main 06606
1954 Corley, Eugene Henry, 1026 Park Ave. 06604
1963 Corso, Philip Francis, 2660 Main 06606
1963 Creatura, John Anthony, 50 Ridgefield Ave. 06610
1947 Curley, William Henry, Jr., 3715 Main 06606
1971 D'Aiuto, Michael Leonard, 50 Ridgefield Ave. 06610
1972 Dalal, Bipinchand Jivanchand, 695 Park Ave. 06604
1950 Dean, Michael Augustine, 2660 Main 06606
1972 DeBernardo, Robert Louis, 3715 Main 06606
1976 DeBonis, Gerald Michael, 3715 Main 06606
1952 DeLibero, Anthony F., 698 Capitol Ave. 06606
1950 DeLuca, Joseph Vincent, 251 North Ave. 06606
1947 Deren, M. David, 1260 Park Ave. 06604
1954 Doering, Robert Warren, 1836 Noble Ave. 06610
1976 Dogali, Michael, 2660 Main 06606
1958 Doherty, Harold Edward, 3175 Main 06606
1958 Dolan, Everitt Patrick, 3715 Main 06606
1963 Donnelly, Vincent Peter, 782 Clinton Ave. 06604
1954 Dugas, Joseph Albert, 660 Kossuth 06608
1941 Duzmati, Paul Peter, 1904 Boston Ave. 06610
1963 Dworken, Donald Savin, 50 Ridgefield Ave. 06610
1954 Eckels, Howard Samuel, 4747 Main 06606
1937 Eimas, Aaron, 340 Capitol Ave. 06606
1970 Eisenberg, Joel Howard, 4749 Main 06606
1948 Elliott, Frank George, Jr., Bridgeport Hospital 06610
1971 Eras, Philip, 3715 Main 06606
1976 Escobar, Santiago, 2837 Main 06606
1939 Esposito, Joseph John, 50 Ridgefield Ave. 06610
1968 Fazzone, Andrew Christian, 148 Mill Hill Ave. 06610
1973 Federico, Frank Nicholas, 3715 Main 06606
1969 Feldman, Morton George, 881 Lafayette 06603
1961 Feldman, Saul Morry, 3715 Main 06606
1956 Flagg, James Anthony, Bridgeport Hospital 06610
1965 Fleisher, Philip, 1438 Park Ave. 06604
1969 Flemister, Adolph Samuel, 944 Fairfield Ave. 06605
1957 Fox, Henry John, 10 Washington Ave. 06604
1954 Frank, Howard David, 114 State 06603
1956 Frenkel, Henry Hans, 827 North Ave. 06606
1958 Fromm, Stanley M., 260 Main 06606
1974 Gargano, Paul Andrew, 114 State 06604
1956 Gariepy, John Arthur, 50 Ridgefield Ave. 06610
1968 Garofalo, George Anthony, 30 DeRamo Pl. 06606
1976 Garver, Eric Michael, 4749 Main 06606
1951 Geanuracos, George James, 50 Ridgefield Ave. 06610
1974 Gianetti, Charles Donald, 3715 Main 06606
1975 Gianetti, David, 3715 Main 06606
1927 Gildea, Mark Andrew, 2600 Park Ave. 06604

1957 Gill, Nicholas Patrick, 50 Ridgefield Ave. 06610
1976 Gilmore, Judith M., 2660 Main 06606
1962 Glass, Mac Ellis Kopel, 50 Ridgefield Ave. 06610
1948 Glass, William I., 881 Lafayette 06603
1950 Goodrich, Albert, 50 Ridgefield Ave. 06610
1956 Gordon, Benjamin Dichter, Bridgeport Hospital 06610
1974 Gossart, Robert Marius, 782 Clinton Ave. 06604
1976 Granger, Donald Peter, 50 Ridgefield Ave. 06610
1955 Grant, James Mullett, 3715 Main 06606
1973 Grayer, David I., 4747 Main 06606
1916 Griffin, Daniel Patrick, 3030 Park Ave. 06604
1943 Grossman, John Henry, 144 Golden Hill 06603
1941 Gulash, John Robert, 562 Boston Ave. 06610
1949 Guttman, Tibor, 1549 Fairfield Ave. 06605
1975 Haghighat, Ahmad, 2820 Main 06606
1973 Hamaty, Daniel, 4000 Park Ave. 06604
1967 Hanley, Hilda Christina, 2660 Main 06606
1963 Harshbarger, James E., 50 Ridgefield Ave. 06610
1972 Hau, Kee-Hung, 50 Ridgefield Ave. 06610
1975 Heller, Charles I., 50 Ridgefield Ave. 06610
1970 Heller, Warren, 3715 Main 06606
1975 Hemenway, Charles Gerald, 340 Capitol Ave. 06606
1938 Hennessey, Joseph Gerard, 482 Brewster 06605
1975 Herman, Myer, City Health Dept. 06608
1977 Herzlinger, Robert Allen, 267 Grant 06602
1975 Hill, Paul Raymond, 3411 Main 06606
1961 Homza, L. Ronald, 2660 Main 06606
1963 Hope-Ross, Peter Edward, 695 Park Ave. 06604
1933 Horn, Benjamin, 3900 Park Ave. 06604
1946 Horowitz, Isaac, 881 Lafayette 06603
1955 Horowitz, Joseph Lewis, 2727 Main 06606
1972 Iodice, Michael Thomas, 50 Ridgefield Ave. 06610
1956 Ireland, Elwood Fremont, Jr., 50 Ridgefield Ave. 06610
1962 Jamshidi, Ahmed, 1475 Barnum Ave. 06610
1962 Johnson, George Blake, Jr., 2952 Main 06606
1942 Kaplan, Leon, 881 Lafayette 06603
1960 Kasper, Richard Francis, 2085 Madison Ave. 06606
1969 Kauders, James Theodore, 2727 Main 06606
1967 Kay, Chester J., 881 Lafayette Blvd. 06604
1969 Kelleher, Michael Joseph, 2660 Main 06606
1946 Kleinman, Harold Louis, 2051 North Ave. 06604
1948 Kogut, Henry Vincent, 50 Ridgefield Ave. 06610
1970 LaMastra, Philip Michael, 267 Grant 06602
1964 Landwirth, Julius, Bridgeport Hospital 06610
1961 Lapinski, Lucian Stanley, 881 Lafayette 06603
1962 Lawrence, John James, 2660 Main 06606
1962 Lebowitz, Wallace Bernard, 2660 Main 06606
1974 Lee, Hee Jong, 226 Mill Hill Ave. 06610
1963 Lee, Nam Hyung, 267 Grant 06610
1959 Leone, Paul Vincent, 50 Ridgefield Ave. 06610
1943 Lesko, Joseph Michael, 144 Golden Hill 06603
1933 Levinsky, Maurice, 1425 Noble Ave. 06610
1956 Levy, Theodore Steinberg, 2727 Main 06606
1972 Lewin, Marvin Lionel, 50 Ridgefield Ave. 06610
1970 Lewis, William Stanley, 837 Fairfield Ave. 06604
1976 Link, Richard Joseph, 50 Ridgefield Ave. 06610
1973 Lisi, Kenneth Ronald, 29 Federal 06606
1961 Lobdell, David Hill, St. Vincent's Hospital 06606
1942 Lopatin, Colman, 971 Fairfield Ave. 06605
1973 Lovanio, Richard Gabriel, 3715 Main 06606
1975 Lucia, Walter, 2660 Main 06606
1948 Luciano, Michael Charles, 2089 North Ave. 06604
1947 Lynch, Vincent Aloysius, 798 North Ave. 06606
1944 Lyon, Grover Arthur, 2009 North Ave. 06604
1975 Mack, Jane Andrews, 815 Penbroke 06608
1955 Madwed, Alice Ente, 25 Saxton Dr. 06604
1976 Maiocco, Kenneth Joseph, 4749 Main 06606
1957 Malyska, Francis Anthony, 4747 Main 06606
1971 Mangieri, John Vito, 50 Ridgefield Ave. 06610
1955 Maniatis, William Richard, 881 Lafayette 06603
1956 Manjoney, Robert John, 2727 Main 06606
1958 Manjoney, Vincent August, 3715 Main 06606
1969 Marks, Eugene M., 939 Barnum Ave. 06602
1966 Marrash, Samir E., 2075 North Ave. 06604
1951 Martelon, George Fred, 1285 Boston Ave. 06602
1972 Masi, Anthony Vincent, 4695 Main 06606
1942 Massey, Daniel M., Bridgeport Hospital 06610
1965 McCullough, Charles Discant, 3163 Main 06606
1952 McGarry, John F., 50 Ridgefield Ave. 06610
1974 McKnight, William Kuhn, 2625 Park Ave. 06604
1967 McLoughlin, Peter Joseph, 1984 Park Ave. 06604
1976 McQuade, G. William, 3715 Main 06606
1952 Meltzer, Saul B., 2660 Main 06606
1970 Mergenthaler, Francis William, 2075 North Ave. 06604
1946 Meshken, Jacob, 2800 Main 06606
1964 Methot, Lawrence Gerard, 3715 Main 06606
1964 Michaels, Arthur Hatzi, 2167 North Ave. 06604
1961 Michalka, Joseph John, 114 State 06603
1947 Molnar, George J., 135 Brooklawn Ave. 06604
1932 Mooney, Sydney, 881 Lafayette 06603
1946 Morris, Felix R., 953 East Main 06608
1973 Musto, Anthony, 50 Ridgefield Ave. 06610
1948 Nagourney, David, 1756 East Main 06610
1948 Newman, Abbott A., 2660 Main 06606
1957 Niesyn, Erwin, 50 Ridgefield Ave. 06610
1977 Nijensohn, Daniel E., 2660 Main 06606
1954 Noonan, Robert Henry, 385 Noble Ave. 06608
1947 Northman, Frank Fred, 753 Lakeside Dr. 06606
1968 Oesau, Harold Thomas, Jr., 50 Ridgefield Ave. 06610
1947 O'Looney, John J. Jr., 1075 Noble Ave. 06608
1948 Olsavsky, John Cyril, 10 Washington Ave. 06604
1944 Oster, Kurt A., 881 Lafayette 06603
1947 Owens, Andrew Paul, 50 Ridgefield Ave. 06610
1976 Pace, Salvatore Anthony, 50 Ridgefield Ave. 06610
1940 Panettieri, Andrew Joseph, Bridgeport Hospital 06610
1974 Park, Yong Joon, 50 Ridgefield Ave. 06610
1942 Parker, Ralph Layton, 881 Lafayette 06603
1937 Pascal, Thomas J., 1560 Noble Ave. 06610
1944 Pasquariello, D. William, 2969 Main 06606
1940 Penner, Sidney Lincoln, 158 Mill Hill Ave. 06610
1964 Peralta, Carlos, 881 Lafayette 06603
1970 Perlman, Jerold M., 50 Ridgefield Ave. 06610
1972 Pesce, Joseph Raymond, 3715 Main 06606
1975 Pineiro, Eberto, 370 Capitol Ave. 06604
1970 Pleban, Walter Edward, 50 Ridgefield Ave. 06610
1953 Pope, Russell, Bridgeport Hospital 06610
1968 Portnoy, Lewis Morton, 695 Park Ave. 06604
1968 Pua, Purificacion, 457 Mill Hill Ave. 06610
1958 Ragusa, Robert Paul, 4747 Main 06606
1975 Ramachandran, MyLvaganam, 114 State 06604
1963 Ramirez, Louis Manuel, 754 Clinton Ave. 06604
1970 Rapoport, Melvyn, 50 Ridgefield Ave. 06610
1972 Reichgut, Martin H., 3715 Main 06606
1942 Resnik, Harry, 26B Greenhouse Rd. 06606
1976 Rhee, Chong, H., 50 Ridgefield Ave. 06610
1950 Riccio, Frank Joseph, 923 East Main 06608
1967 Roach, James Patrick, 3715 Main 06606
1975 Robbins, David I., 2820 Main 06606
1976 Rockwell, William James, 1984 Park Ave. 06604
1961 Rosenbaum, Nathan, 4747 Main 06606
1944 Rosenberg, Hans August, 425 Beechwood Ave. 06604
1959 Rosenberg, Murray Alan, 881 Lafayette 06604
1946 Rosenberg, Saul, 1950 Park Ave. 06604
1974 Rosman, Martin, 50 Ridgefield 06610
1946 Rosner, Fred, 2333 North Ave. 06604
1974 Ruan, Wittaya, 50 Ridgefield Ave. 06610
1973 Rusch, Ortwin Ferdinand, 2820 Main 06606
1949 Russo, John Rocco, 3296 Main 06606
1948 Russo, Robert Dante, 10 Washington Ave. 06604
1975 Russo, Robert Dante, Jr., 30 Anchorage Dr. 06605
1949 Saidel, Joseph W., 932 East Main 06608
1976 Salvio, Daniel Gennovo, 401 Noble Ave. 06608

1954 Samuelson, Arthur Wesley, 50 Ridgefield Ave. 06610
1976 Sanathanamurthy, Mylapanahalli G., St. Vincent's Med. Ctr. 06606
1958 Santella, Salvatore Michael, 2210 Park Ave. 06604
1975 Santilli, John, Jr., 4695 Main 06606
1976 Santomauro, Anthony Gerard, 4747 Main 06606
1963 Saraczynski, Daniel Leon, 2001 Park Ave. 06604
1948 Savin, Sanford, 2660 Main 06606
1971 Sax, Robert Eugene, 782 Clinton Ave. 06604
1942 Scalzi, Leonard Conrad, 924 Noble Ave. 06608
1967 Scavo, Vincent Joseph, 3715 Main 06606
1972 Schare, George David, 340 Capitol Ave. 06606
1975 Schlein, Allen P., 837 Fairfield Ave. 06604
1954 Sciarrillo, Joseph John, 3354 Main 06606
1938 Sekerak, Richard John, 1400 East Main 06608
1976 Senathirajah, Kanagarajanayagam N., 50 Ridgefield Ave. 06610
1968 Shah, Urmila C., 881 Lafayette 06603
1968 Shanley, Walter Thomas, 4749 Main 06606
1948 Shea, Joseph Patrick, 2075 North Ave. 06604
1972 Sheiman, Robert Aaron, 370 Capitol Ave. 06606
1946 Sheiman, Samuel Charles, 1539 Park Ave. 06604
1947 Sherman Irving J., 2660 Main 06606
1972 Shimkin, Peter Michael, 50 Ridgefield Ave. 06610
1944 Sholler, Nicholas A., 2148 North Ave. 06604
1975 Sica, Vincent Frank, 881 Lafayette Blvd. 06604
1976 Siegel, Kenneth Colman, 370 Capitol Ave. 06604
1971 Silverman, Donald Richard, 3715 Main 06606
1958 Simkovitz, Jaime, 881 Lafayette Blvd. 06604
1968 Simpson, John Arthur, 1285 Boston Ave. 06602
1939 Simses, John Peter, 1151 Park Ave. 06604
1976 Simses, John Peter, Jr., 1151 Park Ave. 06604
1950 Small, Alan Robert, 4747 Main 06606
1962 Small, John Howard, 50 Ridgefield Ave. 06610
1963 Sorge, Dominick Vincent, St. Vincent's Hospital 06606
1960 Souvlis, Charalambos D., 881 Lafayette 06603
1971 Stallworth, Vera Martin, 2625 Park Ave. 06604
1971 Steremberg, Zuli, 29 Federal 06606
1964 Stiff, David Parker, St. Vincent's Hospital 06606
1973 Stotts, H. Lyle, Bridgeport Hospital 06610
1976 Sullivan, Barbara E., Park City Hospital 06604
1952 Sullivan, John Lawrence, 50 Ridgefield Ave. 06610
1975 Sulzycki, M. Michael, St. Vincent's Hospital 06606
1973 Taubin, Howard Leslie, 114 State 06603
1953 Thurmond, James Ernest, 50 Ridgefield Ave. 06610
1976 Torstenson, Guy E., St. Vincent's Hospital 06606
1947 Turetsky, Samuel, 2357 Fairfield Ave. 06605
1943 Unger, Milton, 923 East Main 06603
1932 Uvitsky, Irving Harry, 3101 Main 06606
1971 Vallone, Anthony Joseph, 4749 Main 06606
1976 Van Der Aue, George Lane, 2820 Main 06606
1966 van der Veen, Teunis, Bridgeport Hospital 06610
1967 Vincent, Norman Robert, 10 Washington Ave. 06604
1976 Viner, Nicholas Andre, 50 Ridgefield Ave. 06610
1941 Vioni, R. Edward, 3450 Main 06606
1955 Walsh, James Francis, III, 2660 Main 06606
1948 Walzer, Eugene Harold, 540 Clinton Ave. 06605
1942 Ward, James P., 881 Lafayette 06603
1951 Wasserman, Edward, 881 Lafayette 06603
1968 Wasson, Dennis, 50 Ridgefield Ave. 06610
1971 Weglarz, Stanley S., 1475 Barnum Ave. 06610
1973 Weinstein, Alan Harvey, 50 Ridgefield Ave. 06610
1965 Weinstein, Albert, 340 Capitol Ave. 06606
1958 Weinstein, Norman, 340 Capitol Ave. 06606
1948 Weise, Ellwood Carl Jr., 50 Ridgefield Ave. 06610
1977 Williams, Joseph Henry, 2045 Park Ave. 06604
1973 Yu, Henry Chun-Chiang, 2660 Main 06606
1969 Zingmond, Erwin, 4697 Main 06606
1943 Zsiga, Elmo Douglas, 303 Clinton Ave. 06605
1975 Zuckerman, Howard Leonard, 3715 Main 06606

BROOKFIELD 06804

1967 Bowen, Willet Raynor, Route 7
1975 Buscemi, Arthur A., The Pillars RFD #4
1968 DiGrazia, Paul Vincent, Route 7
1971 Foye, Gerald John, Brookfield Prof. Bldg., Rt. 7
1973 Kayal, Frederick Abraham, Brookfield Prof. Ctr.
1975 Nesi, Roland Michael, Brookfield Professional Center
1970 Soletsky, Harry B., Brookfield Prof. Ctr.

COS COB 06807

1940 Ayres, Payson Bryan, 10 Old Post Rd.
1940 Bria, William Francis, Diamond Hill
1959 Clayton, James Augustus, Clover Pl.
1965 Garb, Allan E., 49 Dandy Dr.
1963 Koenig, Allen Russell, 78 Dandy Dr.
1952 Murphy, John Philip, 8 Sinaway Rd.
1967 Suerig, Karl Christian, Mimosa Dr.

DANBURY

1964 Albanese, Antonio Nicola, 13 Hospital Ave. 06810
1962 Azar, Marcel A., 111 West 06810
1963 Badan, Bohodar, Danbury Hospital 06810
1963 Balmaseda, Rene Y., Danbury Hospital 06810
1958 Barese, Angelo Mario, 95 Locust Ave. 06810
1953 Barysh, Noah, 93 West 06810
1976 Beaudoin, James Ronald, 6 Walnut 06810
1973 Berger, David S., 24 Hospital Ave. 06810
1951 Blansfield, Henry Nelson, 46 Federal Rd. 06810
1975 Burris, John Ovie, Glen Hill Rd. 06810
1976 Casazza, Albert Raymond, Glen Hill Rd. 06810
1952 Castro, Roger Perez, 136 South 06810
1952 Cherry, Joseph Bentley, 46 Federal Rd. 06812
1976 Cohen, Herbert George, Linden Crest Dr. 06810
1961 Coleman, Paul Joseph, 92 Locust Ave. 06810
1977 Copen, David L., Danbury Hospital 06810
1965 Daniels, John C., Danbury Hospital 06810
1959 Dawe, Edwin Lloyd, 8 West 06810
1976 DeFrance, John Homer, Danbury Hospital 06810
1942 DeKlyn, Ward B., 177 Main 06810
1947 Edson, Dean Harding, 2 Hospital Ave. 06810
1947 Epstein, Benjamin, 8 Locust Ave. 06810
1975 Exconde, Fidel V. Jr., 16 Hospital Ave. 06810
1974 Falkenstein, Ralph Jay, Danbury No. Shopping Center 06810
1967 Fand, Robert, 79½ North 06810
1963 Fernand, Edwin George, 46 Federal Rd. 06812
1973 Fischl, Robert A., 16 Hospital Ave. 06810
1959 Fornshell, Robert Pearce, 85 Osborne 06810
1931 Gaffney, John James, 215 Main 06810
1958 Gianfranceschi, Guido Richard, 35 Tamarack Rd. 06812
1972 Glucksman, Myron Lawrence, 92 Locust Ave. 06810
1960 Goldberg, Morley Moses, 84 Locust Ave. 06810
1958 Goldman, Alvin, 84 Locust Ave. 06810
1974 Goldstein, Leonard Harry, 84 Locust Ave. 06810
1969 Goldstein, William B., 95 Locust Ave. 06810
1929 Goldys, Frank Max, 209 Main 06810
1976 Gordon, Jonathan Mark, Glen Hill Rd. 06810
1957 Greenfield, Michael, Danbury Shopping Center, North 06810
1960 Herrera, Nilo Ernesto, Danbury Hospital 06810
1973 Hines, Ann Hanahoe, 82 South 06810
1968 Homer, Donald R., Danbury Hospital 06810
1954 Hubbard, Richmond Chase, 59 Main 06810
1957 Jameson, Marjorie Elizabeth, 18 Fairview Ave. 06810
1957 Jameson, Thomas Peter, 18 Fairview Ave. 06810
1953 Jovell, John William, 46 Main 06810
1954 Joy, Robert Chamberlain, 30 Driftway Rd. 06810
1974 Keller, Barry Roy, 84 Locust 06810
1960 Kenter, Ali Mahmut, 46 Federal Rd. 06810

1963 Kilhenny, Charles, 2 Hospital Ave. 06810
1977 Kingsley, Stephen Wayne, 16 Hospital Ave. 06810
1976 Kotch, Arthur, Glen Hill Rd. 06810
1960 Kuczko, Edward Paul, 35 Tamarack Ave. 06810
1974 LaGratta, Roger John, 85 Osborne 06810
1954 Machcinski, Victor Anthony, Danbury Shopping Center 06810
1976 Magavi, Shivayogi V., 58 Division 06810
1970 Malloy, Thomas McKevitt, 85 Osborne 06810
1965 Manlapaz, Jesse Schmidt, 87 West 06810
1975 Mashman, Jan Howard, 16 Hospital Ave. 06810
1962 Mauks, Charles William, 79 West 06810
1957 McDermott, John Joseph, 54 Main 06810
1976 Miller, Jeffrey D., 8 Downs 06810
1958 Miller, Robert George, 70½ West Plaza 06810
1961 Orr, Jack Thomas, Danbury Hospital 06810
1974 Patil, Vijay M., 120 Chambers Rd. 06810
1949 Patterson, Harold Calvin, 93 West 06810
1976 Pezzimenti, John Francis, Glen Hill Rd. 06810
1970 Prince, Marvin Lawrence, 16 Hospital Ave. 06810
1972 Raff, Ira L., Richter Dr. 06810
1949 Randolph, Martin Francis, 70 Deer Hill Ave. 06810
1975 Ripps, Ronald A., 30 Hospital Ave. 06810
1937 Rogol, Louis, 11 Dogwood Dr. 06810
1971 Rose, Turpin Harry, 432 Main 06810
1951 Rosenberg, Bernard L., 35 Tamarack Ave. 06810
1964 Rubin, L. Robert, 84 Locust Ave. 06810
1947 Ruiz, Rolando R., 77 West 06810
1975 Sanchez, Rogelio, 92 Locust Ave. 06810
1976 Saperstein, Stanley, Glen Hill Rd. 06810
1967 Saunders, Francis Peter, 85 Osborne 06810
1958 Schwartz, Raphael David, 92 Locust Ave. 06810
1973 Sellner, Henry Ascher, 84 Locust Ave. 06810
1965 Shafto, William Alan, 18 Fairview Ave. 06810
1970 Sherman, Warren T., Glen Hill Rd. 06810
1958 Silvert, David Sidney, 113B Deerhill Ave. 06812
1965 Simonelli, Joseph Michael, 2 Hospital Ave. 06810
1953 Sinton, William Anthony, 85 Osborne 06810
1958 Staffieri, Salvatore, 116 Main 06810
1932 Tomaino, Felix Francis, 85 West 06810
1963 Tomaino, Pietro, 44 Davis 06810
1965 Upton, Emily Frances, 17 Jeanette Rd. 06812
1957 Van Syckle, Guy Weaver, 30 Hospital Ave. 06810
1972 Weiner, Jay, 92 Locust Ave., Danbury 06810
1975 Whitney, Alden E., 67 Long Ridge Rd. 06810
1970 Zimmer, Alan E., 95 Locust Ave. 06810
1971 Zolov, David Mitchell, 83 West 06810

DARIEN

1961 Allard, Gilles Guy, 20 Wilson Ridge Rd. 06820
1951 Brown, David Arthur, 210 Brookside Rd. 06820
1974 Brown, Spencer Franklin, P.O. Box 1073 06820
1973 Bull, Marcia B., Dew La. 06820
1964 Dorr, James Richard, 36 Old King's Hwy. South 06820
1951 Felder, Edward Arnold, Contentment Island Rd. 06820
1964 Franklin, Marshall, 17 Old King's Hwy. South 06820
1955 Gammill, James Flaude, 767 Post Rd. 06820
1960 Harness, John Henry, 2701 Boston Post Rd. 06820
1954 Hughes, George Stevenson, 10 Nickerson La. 06820
1953 Kavookjian, Haik, Jr., 62 Stanton Rd. 06823
1968 Krauthamer, Martin Joel, 17 Old King's Hwy. South 06820
1962 Kremer, Carl Peter, Jr., 8 Ring's End Rd. 06822
1955 Macgregor, James Verry, 2 Queens La. 06820
1954 McGarry, John Joseph, 36 Old King's Hwy. So. 06820
1977 Michaelson, Stephen P., 17 Old King's Hwy. So. 06820
1956 Ralph, Fenn T., P.O. Box 1162 06820
1966 Schoenwald, Herman R., 298 Brookside Rd. 06820
1975 Skolnick, Stanley Richard, 17 Old King's Hwy. South 06820
1960 Squattrito, Umberto, 17 Old King's Hwy. South 06820
1977 Suchenski, Michael Nicholas, 106 Noroton Ave. 06820
1971 Tobin, John Joseph, 17 Old King's Hwy. South 06820
1976 Yap, Jesus F. Jr., 17 Old King's Hwy. South 06820

EAST NORWALK 06855

1958 Burke, Albert Vincent, 195 East Ave.
1938 Corridon, James Donald, 194 East Ave.
1954 Csovanyos, Laszlo, 200 East Ave.
1973 Dalal, Bharat Jayant, 108 East Ave.
1948 Ippolito, Thomas Leonard, Pine Hill Ave.

EASTON 06425

1951 Chick, Forris Beecham, 171 Sport Hill Rd.
1974 Kim, Yu Hong, Ferndale Rd.
1974 Kim, Kwi Sook Choi, 50 Ferndale Dr.
1952 Ryan, James Edward, 750 Sport Hill Rd.
1935 Smith, Joseph Jacob, 394 Sport Hill Rd.

FAIRFIELD

1969 Abrams, Harold, 1305 Post Rd. 06430
1942 Apuzzo, Anthony Albert, 131 Toilsome Hill Rd. 06430
1944 Barker, Daniel C., 133 Reef Rd. 06430
1951 Baum, Seymour James, 1305 Post Rd. 06430
1939 Biehn, Donald M. Frick, 47 Parkway 06430
1963 Blum, Lawrence Michael, 1700 Post Rd. 06430
1970 Burd, Robert M., 1305 Post Rd. 06430
1975 Casey, Thomas Ray, 3135 Easton Tpke. 06431
1940 Castaldo, Louis F., 130 Old Oaks Rd. 06432
1967 Clift, George Vincent, 325 Reef Rd. 06430
1973 Cohen, Ivan S., 1305 Post Rd. 06430
1973 Cohen, William B., 1305 Post Rd. 06430
1969 Coolidge, Melvin P., 1305 Post Rd. 06430
1957 Cooper, Milton, 1305 Post Rd. 06430
1973 D'Apice, Joseph Patrick, 545 Mill Plain Rd. 06430
1957 D'Elia, Frank G., P.O. Box 207, 765 Post Rd. 06430
1921 DeWitt, Edward Nicholas, 3129 Burr 06432
1949 Edwards, Larry Edwin, 1410 Mill Plain Rd. 06430
1974 Feuer, Paul Michael, 1305 Post Rd. 06430
1957 Flom, Leonard, 1903 Post Rd. 06430
1938 Foley, Francis Xavier, 168 Algonquin Rd. 06432
1968 Gacso, William Julius, 1838 Black Rock Tpke. 06432
1953 Gaffney, Robert Edward, 325 Reef Rd. 06430
1959 Gardner, Charles Wesley, Jr., 100 Verna Hill Rd. 06431
1950 Gardner, Sidney M., 172 Curtis Ter. 06604
1954 Garrell, Marvin, 60 Katona Dr. 06430
1968 Gaynes, Philip Martin, 1903 Post Rd. 06430
1971 Gill, Alan Jay, 1305 Post Rd. 06430
1971 Grossman, Edward T., 1305 Post Rd. 06430
1968 Hankin, Edwin, 1305 Post Rd. 06430
1944 Harris, H. Patterson, Jr., Town Hall 06430
1972 Herbin, Joseph Thomas, 60 Katona Dr. 06430
1977 Hermele, Herbert Ira, 325 Reef Rd. 06430
1963 Higgins, Kenneth Elliot, 325 Reef Rd. 06430
1973 Hobbie, Robert J., 400 Stillson Rd. 06430
1959 Hoffman, William Albert, 1305 Post Rd. 06430
1957 Jonas, Gordon Quincy, 1700 Post Rd. 06430
1943 Jones, Elwood King, 20 Old Barn Rd. 06430
1947 Joslin, Stuart L., 1305 Post Rd. 06430
1958 Kamens, Edward A., 1305 Post Rd. 06430
1973 Katz, Stephen R., 1700 Post Rd. 06430
1948 Kemp, Edward P., 178 Reef Rd. 06430
1948 Kenigsberg, Nathaniel, 55 Skytop Dr. 06432
1972 Kiss, George Thomas, 1240 Post Rd. 06430
1950 Klimas, Francis Alexander, P.O. Box 1172 06432

1957 Knauff, Edward Franklyn, P.O. Box 1172 06432
1924 Kneale, Halford Benson, 239 Toilsome Hill Rd. 06604
1972 Lee, Michael Alan, 1172 Post Rd. 06430
1973 Leighton, Robert Leslie, 261 Robin La. 06432
1955 Lenci, Thomas Dexter, General Electric Co., Med. Ctr. 06431
1977 Levinson, Stephen Ronald, 1305 Post Rd. 06430
1976 Levinson, Stuart Alan, 1305 Post Rd. 06430
1931 Lockhart, R. Harold, 37 Verna Field Rd. 06431
1975 Luchansky, Edward Moyher, 1700 Post Rd. 06430
1975 Machledt, John Hendrix, Jr., 325 Reef Rd. 06430
1949 Markley, Ludwig Louis, 402 Davis Rd. 06430
1959 Maxham, David Lincoln, 553 No. Benson Rd. 06430
1950 McCreery, Edward Prince, 325 Reef Rd. 06430
1949 Messinger, Henry J., 1597 Post Rd. 06430
1973 Molloy, Edward Michael, 1735 Post Rd. 06430
1945 Morgan, Kenneth Remsen, 325 Reef Rd. 06430
1971 Morrisón, Murray Allan, 325 Reef Rd. 06430
1973 Moses, John Austin, 30 Kalan Circle 06430
1954 Moss, Albert Murray, 38 Meadow Court Dr. 06604
1953 Nevins, Robert Allan, 325 Reef Rd. 06430
1974 O'Rourke, George Ward, 1838 Black Rock Tpke. 06430
1962 Pearlstone, Arnold David, 1903 Post Rd. 06430
1960 Pendagast, Edward Leslie, Jr., Burr, R.F.D. No. 1 06430
1975 Pocock, Herman Deidler Jr., 3135 Easton Tpke. 06431
1976 Ray, Michael E., 1305 Post Rd. 06430
1957 Rhame, Harold Ellis, Jr., 325 Reef Rd. 06430
1938 Ribner, Harold, 365 Toilsome Hill Rd. 06430
1959 Rogowski, John Peter, 137 Whiting Pond Rd. 06432
1975 Sacks, Kenneth L., 1305 Post Rd. 06430
1957 Sires, William Oscar, 1506 Post Rd. 06430
1952 Smolen, Elwyn Milton, 1960 Bronson Rd. 06430
1973 Smolen, Ruth L., 1960 Bronson Rd. 06430
1951 Spencer, Samuel, 190 Curtis Ter. 06432
1965 Stathacos, Eustace James, 1951 Congress 06432
1977 Staub, Edward M., 325 Reef Rd. 06430
1953 Stubenhaus, Jay H., 23 Sherman 06430
1975 Tan, Jose Manuel, 325 Reef Rd. 06430
1974 Tidhar, Itschak, 325 Reef Rd. 06430
1971 Twersky, Joshua Moses, 400 Stillson Rd. 06432
1964 Van de Berghe, Richard L., 325 Reef Rd. 06430
1967 Waynik, Cyril, 60 Katona Dr. 06430
1967 Weicholz, Sheldon, 675 Fairfield Woods Rd. 06432
1969 Weitzman, Hervey A., 60 Katona Dr. 06430
1954 Williams, Charles Rockwell, 325 Reef Rd. 06430
1968 Woods, Charles Alexander, 400 Stillson Rd. 06432
1976 Zigun, Charles, 400 Post Rd. 06430

NEW FAIRIELD 06810

1969 Reitwiesner, Andrew George, P.O. Box 8144, Lake Dr., North
1975 Rostenberg, Peter Orris, Candlewood Corners

GLENBROOK 06906

1964 Nadel, Hyman, 397 Courtland Ave.

GREENWICH

1975 Alexander, Gail Susan, Stanwich Rd. 06832
1977 Alexander, Martin M., 20 Dayton Ave. 06830
1955 Arturi, Peter Adolph, 71 Old Church Rd. 06830
1969 Bachner, Paul, Greenwich Hospital 06830
1974 Banyard, Richard David, 4 Dearfield Dr. 06832
1949 Beaty, John Thurston, 49 Lake Ave. 06830
1954 Beck, Edith Marie, 56 Lafayette Pl. 06830
1963 Benninghoff, Daniel William, Greenwich Hospital 06830
1972 Bernene, James Louis, Greenwich Hospital 06830
1957 Bisceglia, Joseph Gregory, 49 Lake Ave. 06830
1949 Blossom, Dudley Buck, Pheasant Lane 06833
1968 Bogdan, Peter E., 49 Lake Ave. 06830
1948 Bolton, John Dewey, 49 Lake Ave. 06830
1976 Bonheim, Nelson Alfred, 1 Perryridge Rd. 06830
1950 Bonnett, Dovell Nicholas, 20 Dayton Ave. 06830
1975 Borges, James S., 49 Lake Ave. 06830
1965 Branom, Wayne Thurman, Jr., 49 Lake Ave. 06830
1966 Camp, Walter Atwood, 49 Lake Ave. 06830
1969 Campbell, Milton Flake, Dearfield Dr. 06832
1975 Catlin, Brian, 4 Dearfield Dr. 06830
1976 Chiang, Han Twu, Greenwich Hospital 06830
1952 Christie, Frederick John, Greenwich Hospital 06830
1976 Clark, John Leo, Greenwich Hospital Assoc. 06830
1975 Cole, Raymond Melvin, 49 Lake Ave. 06830
1977 Conboy, Kevin Edward, 49 Lake Ave. 06830
1974 Coomaraswamy, Rama P., 4 Dearfield Dr. 06832
1970 Crisafi, Bartel Robert, 49 Lake Ave. 06830
1954 Dale, Paul Worthen, 38 Lake Ave. 06830
1973 Danehower, Richard Lloyd, 49 Lake Ave. 06830
1944 Davol, Rector Thompson, 49 Lake Ave. 06830
1950 Dean, Peter Michael, 49 Lake Ave. 06830
1952 Delany, Forbes, 4 Dearfield Dr. 06832
1947 Derkash, Stephen L., Rockwood Lane Spur 06830
1959 Doering, Eckart George, 4 Dearfield Dr. 06832
1975 Finlay, John Robert, 49 Lake Ave. 06830
1951 Finn, Frederick Wall, 4 Dearfield Dr. 06832
1975 Fisher, Milton, Putnam-Weaver Nursing Home 06830
1948 Fogel, David Hudson, 60 Putnam Park 06830
1973 Frank, Ross Delano, 3 Glen Ct. 06830
1972 Gallo, Gary Anthony, 20 Dayton Ave. 06830
1952 Gerster, John Wynne, 4 Dearfield Ave. 06830
1974 Griffin, William M., 49 Lake Ave. 06830
1961 Hampton, William Hately, 38 Lake Ave. 06830
1973 Hardy, Robert E., 42 Sherwood Pl. 06830
1968 Haskins, Donald Miller, General Reinsurance Life Corp. 06830
1977 Hawkins, Cheryl V., Greenwich Hospital 06830
1960 Hecklau, Edmund Frederick, 42 Sherwood Pl. 06830
1963 Hillis, William, 4 Dearfield Dr. 06832
1950 Hoffman, J. Brooks, Perryridge Rd. 06830
1949 Howorth, Beckett, 4 Dearfield Dr. 06832
1977 Huckabee, William Edward, 2 Greenwich Plaza 06830
1965 Innes, James Walker, 1 Perryridge Rd. 06830
1971 Kauer, George L. Jr., American Lane 06830
1959 Keller, Norman Wolf, 49 Lake Ave. 06830
1949 Kent, Edwin Head, 58 North 06830
1972 Kopeloff, Nicholas, 4 Dearfield Dr. 06830
1977 Krieger, Paul David, 1 Perryridge Rd. 06830
1953 Langan, Michael Joseph, 4 Dearfield Dr. 06832
1964 Larkin, John I., 42 Sherwood Pl. 06830
1950 Lee, John Frederick, 20 Dayton Ave. 06830
1976 Lichtenstein, Eric Stefan, 38 Lake Ave. 06830
1969 Lightbody, Forrest E. H. Greenwich Hospital Association 06830
1972 Maher, Peter Harvey, 56 Lafayette Pl. 06830

1974 Marcus, Henriette, Hunting Ridge Rd. 06830
1973 Marino, A. Michael, Greenwich Hospital 06830
1950 Markley, Henry Eugene, 49 Lake Ave. 06830
1976 McCalley, Stuart Wesley, 49 Lake Ave. 06830
1962 McDonagh, Patrick Henry, 18 Mayo Ave. 06830
1953 McKendree, Charles G., Greenwich Hospital Association 06830
1963 Melmed, Ronald Martin, 38 Lake Ave. 06830
1974 Mickley, Diane Wilkins, 239 Glenville Rd. 06830
1974 Mickley, Steven Phillips, 239 Glenville Rd. 06830
1954 Millard, Donald Henry, 4 Dearfield Dr. 06832
1975 Missier, Peter Alexander, 4 Dearfield Dr. 06830
1959 Montimurro, Joseph Anthony, 49 Lake Ave. 06830
1962 Morley, David Clark, 6 Meadow Dr. 06830
1971 Murphy, Joseph M., Greenwich Hospital Association 06830

1948 Murray, John Gregg, Greenwich Hospital 06830
1970 Newberg, Marc E., 49 Lake Ave. 06830
1972 Newman, Robert David, Greenwich Hospital 06830
1971 Nicholl, (D.O.) Robert G., 221 Milbank Ave. 06830
1955 Nolan, Timothy Francis, 49 Lake Ave. 06830
1973 Orphanos, James Peter, 23 Maple Ave. 06830
1962 Patterson, Marjorie Butts, 4 Dearfield Dr. 06832
1961 Prangley, Arthur George, Jr., 4 Dearfield Dr. 06832
1964 Prunier, John Henry, 49 Lake Ave. 06830
1972 Reber, Robert Eugene, 101-1 Lewis 06830
1968 Redmond, Anthony Pierce, 49 Lake Ave. 06830
1968 Rodda, Thomas Douglas, 49 Lake Ave. 06830
1966 Rosenberg, Arthur H., 42 Sherwood Pl. 06830
1946 Rourke, Thomas Alfred, 88 Milbank Ave. 06830
1968 Salerno, Silvio Aniello, Greenwich Hospital 06830
1953 Schwimmer, Robert Rowland, 49 Lake Ave. 06830
1975 Seamonds, Perry, 191 Overlook Dr. 06830
1938 Serrell, Howard P., Round Hill Rd. 06833
1973 Shanahan, Sheila Ann, 42 Sherwood Pl. 06830
1976 Shaw, Katherine Alcid, Greenwich Hospital Assoc. 06830
1970 Spencer, James Alexander Erskine, Greenwich Hospital 06830
1975 Stephenson, James H., 21 Desiree Dr. 06830
1940 Swarts, William B., Warwick Towers 06830
1939 Tunick, George L., 675 Steamboat Rd. 06830
1972 Ubogy, George A., 4 Dearfield Dr. 06830
1958 von Gal, Herbert Vreeland, 4 Dearfield Dr. 06832
1976 Walsh, Francis Xavier, 42 Sherwood Pl. 06830
1942 Weber, Frederick Clarence, Jr., 185 Putnam Park 06830
1953 Wheeler, Robert Channing, Greenwich Hospital 06830
1955 Wilsey, John Colver, 4 Dearfield Dr. 06832
1973 Wilson, James Ronald, Jr., 2 Glenville Rd. 06830
1974 Wolanske, Stephen D., 4 Dearfield Dr. 06830
1969 Wood, James William, 1 Perryridge Rd. 06830
1968 Worcester, James N. Jr., 20 Dayton Ave. 06830
1949 Wyatt, Robert Harry, 1 Perryridge Rd. 06830
1973 Yerg, Raymond A., American Can Co. 06830
1976 Zales, Michael Robert, Edgewood Dr. 06830

HUNTINGTON 06484

1967 Feierstein, Saul, 43 Huntington Pl.
1975 Mizak, Daniel Joseph, 30 Huntington

MONROE 06468

1961 Garrity, James David, Elm
1969 Light, Claude F., 494 Main

NEW CANAAN 06840

1937 Abrahams, Meyer, 1 Colonial Court
1964 Benton, Arnold Jerome, Silver Hill Foundation
1952 Brown, Charlotte Rush, Valley Rd.
1951 Brown, David Seeley, 173 East Ave.
1965 Chachkes, Jacob Trister, 194 South Ave.
1941 Cody, Thomas Patrick, 241 Main
1956 Crary, Horace Ingraham, 173 East Ave.
1954 Crown, Charles Augustus, 194 South Ave.
1960 Eckhardt, William Francis, Jr., 173 East Ave.
1965 Flynn, Thomas Garrett, 138 East
1941 Hebard, George Whiting, Box 758
1945 Hiden, Robert Battaile, P.O. Box 265
1975 Humphries, Robert Hunter, Silver Hill Foundation
1972 Katis, James George, Silver Hill Foundation
1971 Moore, Morgan Francis, 303 Elm
1952 Pullen, Edward Markey, 242 Wahackme Rd.
1949 Rem, Edward A., 73 Comstock Hill Rd.
1958 Rutherford, James Woodson, 162 East Ave.
1975 Scavetta, Joseph Francis, Silver Hill Foundation
1973 Schuster, Carlotta Lief, Silver Hill Foundation
1967 Shutkin, Peter Michael, 173 East Ave.
1974 Slater, James A., 173 East Ave.
1975 Stubblefield, Robert Lee, Box 1177, 208 Valley Rd.
1935 Terhune, William Barclay, 252 Valley Rd.
1947 Wright, Harold S., Silver Hill Foundation

NEWTOWN 06470

1972 Annunziata, Vincent, R.D. No. 3, 6 Patricia La.
1973 Bauta, Humberto Pedro, Danbury-Newtown Rd.
1968 Borrelli, Anthony Paul, Danbury-Newtown Rd.
1976 Brown, Lionel Graham, Danbury-Newtown Rd.
1970 Craven, Raymond Orvin, Danbury-Newtown Rd.
1975 Devarajan, Odhikadu, Fairfield Hills Hospital
1962 Draper, Thomas F., Deep Brook Rd.
1976 Eckert, George Robert, 35 Mt. Pleasant Rd.
1970 Evans, Donald Thomas, Danbury-Newtown Rd.
1975 Gretsch, Barbara Jean, 44 Castle Hill Rd.
1960 Grossman, Robert S., P.O. Box 426
1975 Heckelman, Barry Jay, Danbury-Newtown Rd.
1970 Kotch, Philip Irwin, P.O. Box 426
1974 Margules, Richard M., P.O. Box 426
1966 Meehan, Bernard Joseph, Danbury-Newtown Rd.
1965 Miller, Robert Bernhardt, Fairfield Hills Hospital
1962 Petruschow, Anatol, Fairfield Hills Hospital
1959 Rhinehart, John Woodward, 46 West
1968 Thomas, Douglas Wyndham, P.O. Box 192
1973 Townsend, Gary L., Danbury-Newtown Rd.

NOROTON 06820

1942 Robison, Roy Calvin, Box 3056

NORWALK

1972 Ahmed, Ezzeldin H. S. 114 East Ave. 06851
1941 Aiello, Louis James, 394 West Ave. 06850
1950 Allen, Benjamin Israel, 13 Park 06851
1975 Andrews, Joseph Francis, Jr., 153 East Ave. 06851
1975 Atlas, Ernest, 83 East Ave. 06851
1969 Auerbach, Neil, 149 East Ave. 06851
1963 Barton, Jerome, 10 Mott Ave. 06850
1975 Bernard, Marcelle Thomasine, 156 East Ave. 06851
1974 Biondi, Robert Michael, 149-153 East Ave. 06851
1942 Bradley, E. Tremain, 31 Stevens 06850
1964 Brovender, Arthur, 10 River 06850
1973 Chan, Daniel W., 108 East Ave. 06851
1973 Chapnick, Girard A., 166 East Ave. 06851
1975 Chess, Jeremy, 153 East Ave. 06851
1976 Chumnanvech, Theerayut, 5 Elmcrest Ter. 06850
1965 Corey, Joseph Michael, 53 East Ave. 06851
1945 Corwin, Daniel Bernard, 49 East Ave. 06851
1952 Corwin, Henry Richard, 13 Park 06851
1975 Coscia, Anthony Gaetano, 83 East Ave. 06851
1965 Cronin, William Timothy, 395 West Ave. 06850
1958 Dearani, Abraham Charles, 195 East Ave. 06851
1937 Diamond, Edward H., 71 East Ave. 06851
1959 DiCorato, Frank, 10 Mott Ave. 06850
1954 Dwyer, Gregory Kennedy, 5 Elmcrest Ter. 06850
1966 Fabrizio, Tuula I. J., 42 Stevens 06850
1953 Falsone, Jack Joseph, 147 East Ave. 06851
1975 Fenster, Michael, 10 Mott Ave. 06850
1963 Floch, Martin Herbert, 24 Stevens 06856
1951 Flynn, Edward John, 10 Mott Ave. 06850
1976 Fuchs, H. Martin, 124 East Ave. 06851
1975 Gaynor, Edward B., 153 East Ave. 06851
1946 Gens, John Paul, 153 East Ave. 06851
1947 Genvert, Harold, 5 Elmcrest Ter. 06850
1963 Georgakis, Nicholas, 71 East Ave. 06851 and 890 Ethan Allen Highway, Ridgefield 06877
1974 George, Robert Carr, 10 Mott Ave. 06850
1955 Giardina, David Diego, 394 West Ave. 06850
1938 Giuliano, Louis Augustine, Old Saugatuck Rd. 06855
1949 Gloetzner, Henry James, 71 East Ave. 06851
1959 Goodman, Stanley Erwin, 160 East Ave. 06851

1938 Gorham, Grace Viola, 64 Wall 06850
1955 Griffith, James Joseph, 83 East Ave. 06851
1963 Grossman, Bertram Howard, 153 East Ave. 06851
1974 Hedley, Gerald E., 153 East Ave. 06851
1959 Herman, Eugene B., 520 West Ave. 06850
1968 Hermann, Jens H., 166 East Ave. 06851
1975 Iacovino, John Ralph, 15 Stevens 06850
1973 Jee, Kwang Soo, Fullmar La. 06850
1976 Jerrett, Steven A., 85 East Ave. 06851
1951 Jones, Martling Barnet, 197 East Ave. 06855
1949 Kalaman, Francis J., P.O. Box 629 06851
1973 Kaye, Roger Henry, 5 Elmcrest Ter. 06850
1966 Klein, Jerome Joshua, 83 East 06851
1970 Kramer, Theodore, 10 Mott Ave. 06850
1976 Larson, John Alfred, 126 East Ave. 06851
1970 Levine, Robert Arthur, 85 East Ave. 06851
1977 Lisi, Richard Joseph, 395 West Ave. 06850
1970 Littman, Edward, 83 East Ave. 06851
1974 Lo, Chun Bun, 108 East Ave. 06851
1953 Lovekin, Louise Gout, 10 Mott Ave. 06850
1949 Lyons, Benjamin Ephraim, 10 Mott Ave. 06850
1968 Maloney, Paul Keating, Jr., 12 Elmcrest Ter. 06850
1977 Mandell, Marshall, 3 Brush 06850
1952 Marinucci, Edmund Dominic, 156 East Ave. 06851
1964 McCaul, Kevin Francis, 10 Mott Ave. 06850
1975 McNamara, John Raymond, 10 Mott Ave. 06850
1962 Mendoza, Ruben, 15 Belden Ave. 06850
1963 Meno, George Peter, 108 East Ave. 06851
1965 Merdinolu, Murat Arthur, 152 East Ave. 06851
1946 Mills, Clifford Wheeler, 65 East Ave. 06851
1951 Minor, James Vincent, Jr., 10 Mott Ave. 06850
1961 Minot, Henry Davis, 5 Elmcrest Ter. 06850
1951 Mulford, Edwin H., II, 5 Elmcrest Ter. 06850
1960 Nair, Sreedhar, Carriage Dr. 06850
1951 Norrington, Eric George, 153 East Ave. 06851
and 1 Avery Pl., Westport 06880
1973 Novack, Stuart Neil, 83 East Ave. 06851
1976 Olanoff, Martin, 153 East Ave. 06851
1960 Orlins, Melvin David, Studio Lane 06850
1970 Orr, Harry Dawson, Jr., 35 Hawthorne Dr. 06851
1967 Osborn, Dickson, 153 East Ave. 06851
1975 Pang, Sau Chu, 17 Monroe 06854
1975 Papowitz, A. Joel, 83 East Ave. 06851
1977 Patterson, George Allan, 147 East Ave. 06851
1963 Piro, John Frank, 53 East Ave. 06851
1973 Pool, John L., 166 East Ave. 06851
1949 Richman, Daniel Powell, 111 East Ave. 06851
1955 Rogers, William Joseph, 10 Mott Ave. 06850
1963 Sacco, John Joseph, 85 East Ave. 06851
1974 Sallick, Richard Marshall, Norwalk Hospital 06856
1974 Samai, Hossein, 108 East Ave. 06851
1966 Schulman, Paul L., 83 East Ave. 06851
1972 Schwartz, Paul Edward, 83 East Ave. 06851
1947 Serena, Frank A., 158 East Ave. 06851
1946 Serena, John Mario, 108 East Ave. 06851
1975 Shah, Suvarna M., 50 Washington St. 06854
1976 Shield, Dennis Edward, 12 Elmcrest Ter. 06850
1931 Simon, Louis G., 212 New Canaan Ave. 06850
1968 Singer, Bernard, 104 East Ave. 06851
1950 Skluth, L. Herbert, 87 East Ave. 06851
1963 Stabinsky, Charles, 152 East Ave. 06851
1943 Steinberger, Laszlo, 166 East Ave. 06851
1974 Stember, Rishon H., 111 East Ave. 06851
1937 Stietzel, Eric Ernst, 65 Newtown Ave. 06851
1975 Stovell, Peter Buckner, 124 East Ave. 06851
1962 Sullivan, William Michael, 83 East Ave. 06851
1965 Tager, Michael George, 12 Elmcrest Ter. 06850
1966 Tracey, Edward J., 124 East Ave. 06851
1971 Tracey, James Patrick, 124 East Ave. 06851
1952 Trambert, Harry L., 150 East Ave. 06851
1968 Truax, Hollis Norman, Norwalk Hospital 06856
1953 Vetter, Ignatius Joseph, 5 Elmcrest Ter. 06850
1971 Vigna, Vincenzo, 108 East Ave. 06851
1958 Walker, Harold Clifford, 10 Mott Ave. 06850
1975 Weinberger, Norman J., 149 East Ave. 06851
1971 Weinstein, Arnold H., 10 Mott Ave. 06850
1938 Weinstein, Nathan, 108 East Ave. 06851
1975 Weinstein, Stephen Louis, 104 East Ave. 06851
1958 Wexler, Richard, 166 East Ave. 06851
1977 Wiener, Paul B., 83 East Ave. 06851
1968 Williams, Shirley Yvonne, Norwalk Hospital 06856
1971 Zusman, Howard Eugene, Norwalk Hospital 06856

OLD GREENWICH 06870

1939 Anderson, Clifton Winthrop, P.O. Box 37
1973 Blumberg, Joel Myron, 8 West End Ave.
1950 Brock, Warren Heath, 311 Sound Beach Ave.
1967 Gray, Charles Helman, 4 Cove Ridge Lane
1974 Kitchen, Robert Nelson, 8 West End Ave.
1972 Lewis, Stephen H., 8 West End Ave.
1973 Nemec, Jutta Magnus, 9 Meadow Pl.
1976 Poutas, John J., 46 North Ridge Rd.
1973 Rein, Joel M., 8 West End Ave.
1959 Schmitt, Daniel, 8 West End Ave.
1963 Siefert, Frederick Edward, 8 West End Ave.

RIDGEFIELD 06877

1975 Boorer, Rebecca T., 31 Scott Ridge Rd.
1975 Bowen, Malcolm Garry, Ridgefield Med. Bldg.
1975 Brook, Joel Eugene, 38 Grove
1967 Buchman, Joseph Gilbert, 38 Grove
1974 Chambers, C. Frank, P.O. Box 635
1975 Cohen, George Allan, 890 Ethan Allen Highway
1975 Elisofon, Robert M., 38 Grove
1966 Guigui, Armand, 900 Ethan Allen Highway
1975 Guigui, Christine B., 484 Main
1972 Katis, Lauma U., 162 Old West Mountain Rd.
1977 Lefkowitz, Lawrence A., 38 Grove
1976 Monroe, Jeffrey Bruce, 31 Bryon Ave.
1977 Neligan, Patrick, 38 Grove
1977 Ruxin, Robert Lloyd, 38 Grove
1951 Safford, Theodore, Jr., 69 Main
1962 Sheehan, James Ennis, 484 Main
1975 Zelson, Carl, 71 Bennetts Farm Rd.

RIVERSIDE 06878

1975 Caragol, William John, 96 Club Rd.
1967 Kelly, J. Colman, 30 Bonwit Rd.
1939 Read, Francis Arnold, 10 Crescent Rd.

ROWAYTON 06853

1938 Hunkemeier, Edna, 1 Nylked Ter., Pine Point
1948 Levine, Abraham I., 26 Wilson Ave.
1956 Rose, Gilbert Jacob, 25 Sammis

SANDY HOOK 06482

1976 Wachsman, Harvey Frederick, Great Quarter Rd.

SHELTON 06484

1941 Pagliaro, Joseph John, 405 Coram Ave.

SHERMAN 06784

1977 Reed, David Michael, Box 67-A, Anderson Rd.

SOUTH NORWALK 06854

1946 Burack, Jason Oliver, 20 North Main

SOUTHPORT 06490

1935 Antell, Maxwell Joseph, 64 Southport Woods Dr.
1939 Hardenbergh, Daniel Bailey, 101 Harbor Rd.
1949 Kueffner, William Robert, 99 Harbor Rd.

1953 Reinhard, Warren John, 311 Pequot Ave.
1961 Scholan, Francis James, 99 Harbor Rd.
1947 Sterrett, Raymond A., 115 Main

SPRINGDALE 06879

1949 Savak, Joseph Ernest, 743 Hope

STAMFORD

1946 Abrahamson, Robert Henry, High Valley Way 06903
1976 Ali, Azhar Asghar, 55 Forest 06902
1956 Banfield, Richard Sterling, Jr., 144 Morgan 06905
1936 Bannon, Frederick Michael, 691 Westover Rd. 06902
1975 Baron, Bruce Robert, 37 Glenbrook Rd. 06902
1954 Bellwin, Alexander, 144 Morgan 06905
1968 Benjamin, Burton Irving, 19 Third 06902
1976 Benjamin, Jeffrey Lloyd, 47 Oak 06905
1954 Benjamin, Martin Robert, 1425 Bedford 06905
1965 Bessa, Octavio, Jr., 1380 Bedford 06905
1974 Blabey, Robert Groesbeck, Jr., 70 Mill River 06902
1974 Blass, Jolan Wirth, 173 Hubbard Ave. 06905
1973 Bockar, Joyce A., 52 Briarwood La. 06903
1976 Bond, Oliver Bowes, 44 Strawberry Hill Ave. 06902
1957 Borowy, John Edward, 1380 Bedford 06905
1974 Bottiglieri, Nicholas G., 965 Hope 06907
1971 Braun, Ronald Walter, 133 MacGregor Dr. 06902
1954 Breakell, Edward Samuel, Stamford Hospital 06902
1967 Browne, Francis Joseph, 1425 Bedford 06905
1961 Browne, Michael Alexander, 1425 Bedford 06905
1961 Browning, Louis D. Jr., 83 Morgan 06905
1971 Bujdud, Christian M., 192 Barclay Dr. 06903
1969 Bull, Sherman Marsh, 70 Mill River 06902
1951 Bullen, Halsey Graves, 21 Broad 06901
1969 Bullwinkel, George Albert, Jr., 70 Mill River 06902
1973 Carino, John Maurice, 47 Oak 06905
1944 Cassone, Rocco, 1010 Washington Blvd. 06901
1966 Chamberlin, Allen Chapin, 144 Morgan 06905
1950 Cloonan, John Joseph, 95 Morgan 06905
1946 Colburn, Russell Fitch, 1416 Bedford 06905
1954 Coleman, Monroe, 144 Morgan 06905
1940 Connolly, Joseph Patrick, 193 Davenport Dr. 06902
1974 Cook, Colin Burford, 297 High Ridge Rd. 06905
1969 Cottle, Robert D., 125 Strawberry Hill Ave. 06902
1961 Coughlin, Francis Raymond, Jr., 144 Morgan 06905
1940 Crane, James Everett, 965 Hope 06907
1975 Dalgin, Paul Henry, 1100 Bedford 06905
1962 Danoff, Stuart Jay, 1867 Summer 06905
1973 Deutchman, Ralph Floyd, 47 Oak 06905
1968 Dombrowski, Edwin Henry, 95 Morgan 06905
1976 D'Onofrio, Gregory Richard, Jr., 21 Broad 06901
1973 Dreyer, Neil Paul, 19 Third 06902
1976 Dubissette, Michael E., 115 West Main 06902
1968 Echental, Arthur A., 98 Hoyt 06905
1976 Ecker, Martin D., 209 Shelter Rock Rd. 06903
1973 Elder, William John, Cologne Life Reinsurance Co. P.O. Box 300 06904
1956 Eliasoph, James Lee, 70 Mill River 06902
1955 Eng, Gunnar Orville, 83 Morgan 06905
1959 Erdelyi, Paul Gedeon, 132 Hope 06906
1973 Erichson, Robert B., 140 Hoyt 06905
1952 Fakkel, Marie Josephine, 100 Hoyt 06905
1954 Farrell, Jean Elizabeth, 1425 Bedford 06905
1950 Farrell, Richard Francis, 35 Hoyt 06905
1976 Feuer, Charles R., 112 Hoyt 06905
1933 Fincke, C. Louis, 21 Broad 06901
1937 Fine, Barnet, 70 Grove 06902
1936 Fine, Joseph, 49 Urban 06905
1962 Fisher, Lloyd Chaim, 31 Strawberry Hill Ave. 06902
1975 Fitzgerald, Terence Sean, 500 Newfield Ave. 06905
1971 Fleming, Richard Joseph, Shelburne & W. Broad 06902
1958 Fogelman, Henry, 69 Forest 06902
1976 Forman, Mel Alan, 98 Hoyt 06905
1969 Fox, Martin, 1435 Bedford 06905
1974 Friedman, Michael Arnold, 144 Morgan 06905
1931 Gandy, R. Alfred, East La. 06905
1953 Geer, Enos Throop, 144 Morgan 06905
1974 Gefter, William Irvin, St. Joseph's Hospital 06904
1931 Giles, Newell Walton, 1 Atlantic 06901
1977 Gilligan, Robert, 120 Long Ridge Rd. 06904
1964 Gofstein, Ralph M., 235 Den Rd. 06903
1953 Golbey, Robert Bruce, 1424 High Ridge Rd. 06903
1974 Gold, Leonard, 1425 Bedford 06905
1974 Goldberg, Paul Aaron, 125 Strawberry Hill Ave. 06902
1954 Goldfarb, Jerry, 19 Third 06902
1949 Goldfarb, Simon L., 1435 Bedford 06902
1965 Goodhue, Peter Ames, 70 Mill River 06902
1976 Gordon, Gilbert Lee, 2 Landmark Sq. 06921
1976 Gorun, George, 144 Prospect 06901
1968 Grann, Victor Robert, 140 Hoyt 06905
1970 Gray, Parke Hanswood, 70 Mill River 06902
1962 Gromults, Joseph Michael, Jr., 125 Strawberry Hill Ave. 06902
1947 Haine, John W., 83 Morgan 06905
1975 Hanson, Ervin Eugene, 83 Morgan 06905
1977 Harris, Henry Lewis, 125 Strawberry Hill Ave. 06902
1955 Harrison, Arthur M., 1100 Bedford 06905
1967 Hassan, Kamal Aly, 1425 Bedford 06905
1972 Hecht, Harvey Leon, Stamford Hospital 06902
1955 Izzo, Patrick Anthony, 21 Broad 06901
1944 Jaiven, Saul Joseph, 21 Bridge 06905
1956 Kanter, Donald Morton, 31 Strawberry Hill Ave. 06902
1965 Karas, Lewis Maxwell, 19 Third 06902
1956 Kardos, Joseph Anthony, 860 Stillwater Rd. 06902
1955 Keller, Louis, 554 Bedford 06902
1951 Kemp, Walter Wyckoff, 21 Broad 06901
1976 Khoshnood, Fereydoon, 44 Strawberry Hill Ave. 06902
1976 Kim, Peter, 750 Summer 06905
1957 King, Stewart Alan, 70 Mill River 06902
1947 Klein, Harold T., 33 Forest 06902
1969 Klein, Neil Charles, 31 Strawberry Hill Ave. 06902
1976 Klenoff, Bruce Howard, 100 Hoyt 06905
1939 Koffler, Arthur, 39 Glenbrook Rd. 06902
1970 Krasnogor, Lester Jay, Stamford Hospital 06902
1959 Kraut, Herbert Leon, 47 Oak 06905
1952 LaCorte, Salvatore, 90 Wyndover La. 06902
1965 LaForte, Peter, 70 Mill River 06902
1977 Landesman, Richard H., 26 Strawberry Hill Ave. 06902
1973 Lebowitz, Alan I., 31 Strawberry Hill Ave. 06902
1951 Levine, Harry Philip, 828 High Ridge Rd. 06905
1951 Levine, Julian, 23 Hoyt 06905
1975 Lovegrove, Robert Harry, 35 Hoyt 06905
1968 Lundberg, Einar Albin, 1937 West Main 06904
1961 Madison, Robert Louis, 27 Strawberry Hill Ave. 06902
1953 Magida, Melville Gerson, 31 Strawberry Hill Ave. 06902
1934 Malloy, Edward Francis, 90 Hubbard Ave. 06905
1948 Mancinelli, M. Joseph, 102 West Lane 06905
1968 Manimbo, Sergio G., 82 Erickson Dr. 06903
1946 Mastrangelo, Angelo, Jr., 19 Grandview Ave. 06905
1933 McFarland, Frederick William, 128 Strawberry Hill Ave. 06904
1948 McIntyre, Frederick Powers, 23 Hoyt 06905
1968 McKee, David Rice, 144 Morgan 06905
1953 McNerney, John Cornelius, 111 Four Brooks Dr. 06903
1975 McSweeney, James Joseph, 128 Strawberry Hill Ave. 06904
1947 Meacham, Charles Thomas, 1911 Summer 06905
1946 Miller, Hugh Kennedy, 70 Mill River 06902
1955 Morgan, Laura Grey, 21 Bridge 06905
1949 Moriarty, James Patrick, 23 Hoyt 06905
1970 Mostel, Arthur P., 27 Strawberry Hill Ave. 06902
1949 Moulyn, Adrian C., 63 Palmer's Hill Rd. 06902
1947 Mulaire, Victor J., 1010 Washington Blvd. 06902
1970 Nagle, John A., 23 Hoyt 06905
1940 Nemoitin, Bernard Oscar, 96 Main 06901

1977 Ney, Charles, 56 Lynam Rd. 06903
1973 Niell, Jose Pedro, 25 Third 06902
1952 Nolan, John Joseph, 95 Morgan 06905
1975 O'Connell, Richard Lee, 120 Long Ridge Rd. 06902
1946 Ogilvie, John Black, 95 Morgan 06905
1962 Orth, Robert Heyde, 47 Oak 06905
1957 Ostriker, Marilyn, 144 Morgan 06905
1955 Ostriker, Paul J., 144 Morgan 06905
1970 Ozcomert, Sedat, 555 Newfield Ave. 06906
1976 Parry, Michael Frank, 190 W. Broad 06902
1963 Pesiri, Ralph Anthony, 1729 Bedford 06905
1946 Poczabut, John Stephen, 23 Hoyt 06905
1970 Prokop, James Donald, 83 Morgan 06905
1948 Raffaele, Frank Joseph, 159 Main 06901
1969 Rainville, Thomas Joseph, 1867 Summer 06905
1973 Rapoport, Alan M., 50 Glenbrook Rd. 06902
1938 Rawls, Cotton, 300 Main 06901
1969 Resnick, Jerome S., 50 Glenbrook Rd. 06902
1929 Resnik, William Harry, 27 Fox Hill Rd. 06903
1975 Rha, Chan-Kook, 95 Morgan 06905
1954 Richar, Walter John, 22 Beach View Dr. 06902
1960 Ridgway, Walter Stevens, 70 Mill River 06902
1975 Rini, James Martin, 128 Strawberry Hill Ave. 06904
1974 Robin, Noel Ira, Stamford Hospital 06902
1951 Rogers, James Forbes, 70 Mill River 06902
1966 Rogers, Martin C., 28 Haviland Rd. 06903
1953 Rosenberg, Charles H., 810 Bedford 06905
1975 Rubinstein, Henry Maxwell, 44 Strawberry Hill Ave. 06902
1951 Ryan, John Joseph, 172 North 06902
1951 Ryan, William Arthur, 1729 Bedford 06905
1976 Salib, Fikry Boulos, 750 Summer 06902
1962 Santagata, Pasquale William, 78 West Hill Circle 06902
1964 Sava, Gerard Anthony, 70 Mill River 06902
1957 Savitsky, Elias, 47 Oak 06905
1970 Schwartz, Arnold Jay, Stamford Hospital 06902
1949 Sheard, Charles, 76 Glenbrook Rd. 06902
1973 Sheftell, Fred D., 500 Newfield Ave. 06905
1938 Sherman, Saul Harvey, 27 Bridge 06905
1969 Sherrington, Harold Jaime, 555 Newfield Ave. 06905
1960 Siderides, Cleo I., Stamford Hospital 06902
1958 Siderides, Lambros E., 1100 Bedford 06905
1950 Slater, Gertrude, 1675 Bedford 06905
1962 Smeraldi, Richard Anthony, 44 Strawberry Hill Ave. 06902
1941 Smith, Leo Michael, Stamford Hospital 06902
1942 Stankard, William Francis, 51 Hartcroft Rd. 06902
1959 Steglich, Carl Peter, P.O. Box 1092 06904
1965 Steinberg, David Herman, 95 Morgan 06905
1975 Steinberg, Michael G., St. Joseph's Hospital 06902
1962 Steller, Robert Eugene, 95 Morgan 06905
1965 Strauch, Gerald Otto, 70 Mill River 06902
1961 Sullivan, John Joseph, Jr., 144 Morgan 06905
1967 Suttenfield, Virginia, 500 Wire Mill Rd. 06903
1949 Svedlow, Bernard Dave, 1767 Summer 06905
1977 Tai, Rafiq, 143 Hoyt 06905
1950 Tella, Ralph Thomas, 107 Glenbrook Rd. 06902
1958 Trent, Joe Watson, Westover Park 06902
1940 Troy, William Daniel, 140 Hoyt 06905
1967 Usman, Ahmed, 1700 Bedford 06905
1970 Vinnick, Leonard, 1100 Bedford 06905
1968 Voss, Howard Evan, 144 Morgan 06905
1966 Walsh, Thomas Joseph, 1100 Bedford 06905
1957 Waxberg, Joseph David, 65 Prospect 06902
1976 Webber, Thomas G., 750 Summer 06901
1953 Weed, Clayton Bagshaw, 37 Glenbrook Rd. 06902
1975 Weinstein, Paul L., 140 Hoyt 06905
1969 Weisel, Alan, 47 Oak 06905
1967 Widrow, David Richard, 1425 Bedford 06905
1952 Williams, Frederick Davis, 1 Atlantic 06901
1956 Wilson, John Marion, Jr., 144 Morgan 06905
1976 Winter, Richard E., 2 Landmark Sq. 06921
1972 Winterhalter, Charles McNeill, Pitney Bowes, Walnut & Pacific 06904
1961 Wolfsohn, Alfred Werner, 31 Strawberry Hill Ave. 06902
1947 Wrona, Eugene Adam, 1435 Bedford 06905
1977 Yudkofsky, Paul Lester, 107 Glenbrook Rd. 06902
1954 Zalichin, Henry, 555 Newfield Ave. 06905
1954 Zimmern, Richard Lee, 1867 Summer 06905

STRATFORD 06497

1963 Asken, Saul, 2505 Main
1957 Biassey, Earle Lambert, 39 Stonybrook Rd.
1959 Birge, Elizabeth Barbara, 3017 Main
1972 Cohen, Selwyn Alan, 2875 Main
1961 Copeck, Gerald, 39 Stonybrook Rd.
1969 Covey, William G., 2875 Main
1935 Del Vecchio, Leonard Frederick, 472A Commanche Lane, Oronoque Village
1961 Feroleto, George Joseph, 740 Oronoque Lane
1936 Friedman, Nathan Harris, Beaver Dam Rd.
1927 Haberlin, Chester Edward, 2553 Main
1972 Halloran, James V., 184B Apache La.
1949 Hansen, Wilbur Henry, 113B So. Trail, Oronoque Village
1956 Inder, Harry Albert, 162A Bisson Lane, Oronoque Village
1976 Jankowich, Raymond Elias, 3360 Main
1941 Kaufman, William, 395A Ottawa La., Oronoque Village
1963 Keogh, Raymond Joseph, 3095 Main
1959 Levieff, Leo, 2875 Main
1964 Levy, Samuel Howard, 3007 Main
1953 Licciardello, Anthony Thomas, 2875 Main
1946 Lyddy, John Roger, 2875 Main
1955 Peterson, Richard Charles, 3966 Main
1942 Roberge, George Edward, 51 Meadowmere Rd.
1960 Weitzner, Arthur, 373 Nichols Ave.
1960 Yildizalp, Naci Mehmet, 2875 Main
1947 Zielinski, John Blaise, 2875 Main

TRUMBULL 06611

Long Hill

1933 Adzima, Joseph Matthew, 45 West Lake Rd.
1957 Austrian, Herman, 935 White Plains Rd.
1947 Brown, Richard J., 157 Pinewood Trail
1961 Citrano, Eugene Charles, 502 White Plains Rd.
1935 Creaturo, Nicholas Edward, 10 Rockland Rd.
1958 Cronan, Thomas Leo, 4719 Madison Ave.
1973 Crossman, Wayne Francis, 600 Tashua Rd.
1962 Giangrasso, Anthony Eugene, 6363 Main
1974 Koehler, Paul Burrell, Chesbrough Pond's Inc.
1977 Kunkel, Maureen Herlihy, 24 Whalburn Ave.
1948 Mack, Arthur Gerard, 1918 Huntington Tpke.
1960 Neth, William Francis, Trumbull Center
1958 Sherlip, Bernard Jay, 935 White Plains Rd.
1942 Trautman, Edwin Frederick, 5367 Main
1959 Veneruso, Ciro, 935 White Plains Rd.
1934 Wehger, Roland Theodore, 158 Plymouth Ave.
1973 Willis, John August, 6004 Main

WESTON 06880

1973 Albert, Joel Stuart, 8 Stonehenge Rd.
1957 Bucky, Thomas Lee, Weston Rd.
1962 Schmiedeck, Raoul A., 34 Cedar Hills Rd.

WESTPORT

1970 Aaron, Stuart Denis, 251 Riverside Ave. 06880
1977 Abeles, John H., 3 Otter Trail 06880
1954 Adler, Daniel Harvey, 131 Kings Highway No. 06880
1948 Barnett, Roy Nathaniel, 125 South Compo Rd. 06880
1953 Beasley, Albert Sidney, 129 Kings Highway No. 06880

1960 Beck, David, 44 Elm 06880
1952 Beinfield, Malcolm Sidney, 125 Kings Highway 06880
1966 Bender, Stuart Howard, 127 Kings Highway No. 06880
1957 Beres, Paul, 162 Kings Highway No. 06880
1954 Berman, Leo H., 17 Otter Trail 06880
1963 Brovender, Stanley, 2 Colony Rd. 06880
1973 Brown, Harry J., 310 Main 06880
1971 Carroll, Robert McHenry, 246 East State 06880
1963 Cassell, Robert Theodore, 225 Main 06880
1973 Chumnanvech, Nongnuch L., 10 North Ridge Rd. 06880
1973 Czuczka, Peter, 129 King's Highway No. 06880
1961 Doctor, Daniel W., 129 Kings Highway No. 06880
1973 Doctor, Judith Eva, 129 Kings Highway No. 06880
1962 Dolberg, Harold M., 2 Mayflower Pkwy. 06880
1965 Dorison, Ezra Eli, 136 Main 06880
1975 Duleep, Kodendera Subbiah, 125 Kings Highway No. 06880
1930 Ellrich, David Lionel, 266 State 06880
1975 Frumkin, Samuel, 162 Kings Highway No. 06880
1943 Gerow, George H., P.O. Box 27, Saugatuck Station 06880
1958 Goehausen, Myles Conrad, 266 East State 06880
1976 Greenburg, Jerry L., 131 Kings Highway No. 06880
1976 Herbstman, Martin Stuart, 125 Kings Highway No. 06880
1960 Hughes, William Francis, 125 Kings Highway 06880
1945 Johnson, William Henry Nelson, 12 North Ridge Rd. 06880
1965 Kallick, Charles John, 35 East Main 06880
1955 Kaunitz, Paul E., 127 Kings Highway No. 06880
1965 Kessler, William, The Willows 06882
1970 Laffaye, Horace A., The Willows 06880
1947 Lebhar, Neil F., 20 Bay 06880
1958 Lichtman, Alvin, 24 Easton Rd. 06882
1977 Lieberman, Gerald, 162 Kings Highway No. 06880
1969 Lieberson, Alan David, 162 Kings Highway No. 06880
1973 Lippman, Kenneth J., 225 Main 06880
1972 Loveless, Mary H., 22 Cavalry Rd. 06880
1976 Luck, Leon Eugene, 225 Main 06880
1950 Lynch, Franklin, 20 Bay 06880
1952 Micheels, Louis Joseph, 129 Kings Highway No. 06880
1965 Moadel, Michael Moosa, 170 West State 06880
1934 Morgan, William Oliver, 269 Main 06880
1975 Moskowitz, Robert Stephen, 225 Main 06880
1938 Northrop, Robert Arthur, 95 Hillspoint Rd. 06880
1959 Perlis, Sanford James, 131 Kings Highway No. 06880
1968 Raff, Neil Charles, 32 Imperial Ave. 06880
1967 Roberts, Gerald David, 162 Kings Highway No. 06880
1970 Robins, Richard John, 431 East State 06880
1969 Rossi, Joseph P., 8 Ferry La. East 06880
1958 Sacks, Herbert Simeon, 35 East Main 06880
1971 Schneider, Robert George, 253 Riverside Ave. 06880
1952 Schultz, Martin, 81 Myrtle Ave. 06880
1970 Shapiro, Howard I., 131 Kings Highway No. 06880
1975 Shapiro, J. Robert, 236 Hills Point Rd. 06880
1975 Shaywitz, Sally Epstein, 17 Cardinal Lane 06880
1976 Sheppard, Edward Camillo, 12 Avery Pl. 06880
1958 Shiller, Jack Gerald, 129 Kings Highway No. 06880
1941 Shoup, Homer B. Jr., 131 Kings Highway No. 06880
1967 Silberman, Charles George, 136 Main 06880
1972 Singer, Joel Barnett, 32 Imperial Ave. 06880
1977 Sivak, Denis M., 131 Kings Highway No. 06880
1943 Solway, Rueben Isaac H., 1 St. John Pl. 06880
1961 Steinberg, Harold, 162 Kings Highway No. 06880
1950 Syz, Hans, 30 Turkey Hill Rd. So. 06880
1960 Tec, Leon, 11 Rocky Field Rd. 06880
1960 Wasserman, Harvey Robert, 136 Main 06880

WILTON 06897

1975 Appleby, Robert Earle, 55 Danbury Rd.
1974 Campbell, Carleton, 347 Nod Hill Rd.
1976 Cohn, Warren Meisel, 19 Old Ridgefield Rd.
1976 D'Souza, Arthur George, P.O. Box 793
1966 Franklin, David Noel, Merwin Building
1972 Jonas, Sarah, Linden, Old Ridgefield Rd., P.O. Box 632
1975 Lehmann, Walter Xavier, 27 Cricket Lane
1948 Maidman, Leonard, P.O. Box 218
1975 Martin, Dean Nelson, 55 Danbury Rd.
1977 Silverman, Charlene Kaiser, 97 Highfield Rd.
1954 Zucker, Richard Arthur, Cricket Lane

OUT OF COUNTY

1940 Adams, Mary, c/o Mrs. W. F. King, P.O. Box 628, Bath, Maine 04530
1973 Alena, Gordon Roland, 7300 E. 87th Ter., #302, Kansas City, Missouri 64138
1929 Amos, Isadore Louis, Sun Valley Estates, Tarpon Springs, Florida 33589
1947 Anton, Michael Charles, U. S. Military Academy, Stewart Health Clinic, Newburgh, N.Y. 12550
1947 Barber, Richard Robbins, 4520 No. Camino Kino, Rt. No. 5, Box 702, Tucson, Arizona 85718
1936 Beck, Eugene Cornelius, 301 Park Ave., New York City, New York 10028
1955 Boas, Norman Francis, 100 Clift, Mystic 06355
1926 Bowman, Stuart Howard, 3300 Gulf Shore Blvd., Naples, Florida 33940
1969 Brody, David Michael, 3313 Quesade, N.W., Washington, D.C. 20015
1965 Chiaramonte, Cajetan Thomas, R.D. #1, Bloomer Rd., North Salem, N.Y. 10560
1942 Colmers, Rudolf Albert, 217 East Huntingdon, Savannah, Georgia 31401
1937 Cunningham, Robert D.M., 976-A Heritage Village, Southbury 06488
1934 D'Andrea, Frank Henry, Strawberry Hill Farm, Shoreham, Vermont 05770
1928 Delohery, Cornelius Leo, 56 W. Arch Dr. Lake Worth, Florida 33460
1959 Dobson, John Patrick, G. Pierce Wood Mem'l Hosp., Arcadia, Florida 33821
1968 Dudley, James Patrick, 12647 Homewood Way, Los Angeles, California 90049
1937 Egee, J. Benton, 951A Heritage Village, Southbury 06488
1951 Epstein, Ezra J., Bayberry Way, Pound Ridge, New York 10576
1946 Goodrich, William F., 405-C Spyglass La., Vero Beach, Florida 32960
1945 Gratz, Charles Murray, 1 Tom's Point La., Port Washington, New York 11050
1940 Grigas, John E., P.O. Box 362, Basking Ridge, New Jersey 07920
1960 Henry, Philip Daniel, 299 Seymour Ave. Derby 06418
1955 Huss, Geraldine Rider, 514 Nordhoff Dr. Leonia, New Jersey 07605
1944 Inkster, James H., 5 Hastings Ave., Keene New Hampshire 03431
1976 Kaplan, Nathaniel Richard, 118 Stevens La., Glastonbury 06033
1964 Keddy, Russell Alfred, 651 Southwest Sixth, Pompano Beach, Florida 33060
1955 Keleman, Eugene, P.O. Box 518, South Laguna, California 92677
1938 Keys, Robert Cathcart, Winchester, Kansas 66097
1967 King, Edmund Joseph, Rt. 163, Falls Village 06031
1970 Kraus, George, Yale Un. Health Services, New Haven 06520
1927 Levy, Maurice Noel, 9660 W. Bay Harbor Dr., Bay Harbor Islands, Florida 33154
1933 Lockwood, Jane, Baldwin Hill Rd., New Preston 06777

1950 Losito, Amedeo Joseph, 2888 S. E. Italy, Port St. Lucie, Florida 33452
1948 Luria, Sydney, 3501 Keyser Ave., #21, Hollywood, Florida 33021
1928 McGourty, Andrew Frederick, Box 77, Norfolk
1938 McLean, T. Smith, Village Green, 7300 Rt. 60, Vera Beach, Florida 32960
1975 Mehta, Sukh Sampat Raj, Loma Linda Univ., Loma Linda, California 92354
1936 Moore, Clifford Douglas, 129 E. Lake Dr., Lehigh Acres, Florida 33936
1944 Morrissett, Leslie Emerson, 5104 Riverside Dr., Richmond, Virginia 23225
1938 Murphy, Charles Anthony, Champlain Rd., Chatham, Massachuetts 02633
1951 Murphy, John Christopher, 531 East 20th, New York City, New York 10010
1975 Pathak, Jitendra Ambalal, 6-A Robert Treat Dr., Milford 06460
1975 Pathak, Kunja Jitendra, 6-A Robert Treat Dr., Milford 06460
1938 Padula, Ralph Domenick, 6611 Cypress Lake Dr., Fort Meyers, Florida 33902
1945 Pearce, Marvin G., 1408 Rabb Rd., Barton Ter., Austin, Texas 78704
1939 Reynolds, Whitman Mead, R. F. D. 1, Box 77A, Stonington 06378
1935 Rogers, Robert Page, Box 245, North Chatham, Massachusetts 02650
1940 Shaw, Lillian Eloise, Baldwin Hill Rd., New Preston 06777
1958 Simon, H. Joseph, V. A. Hospital, Waco, Texas 76708
1930 Sollosy, Alexander, 3200 Palm-Aire Dr. No., Apt. 404 Pompano Beach, Florida 33060
1949 Spannaus, Fred C. Jr., Rt. 199, Roxbury 06783
1975 Speth, C. Peter, 1912 Linda Vista, Turlock, California 95380
1950 Spinelli, Nicholas P. R., 103 Housatonic Dr., Devon 06460
1935 Strayer, Luther Milton, P.O. Box 366, Lancaster, New Hampshire 03584
1977 Tai, Abdur Razzak, 800 N. Central Ave., Kissimmee, Florida 32741
1938 ter Kuile, Roger Couvelle, 117 W. Main, Lebanon, Illinois
1925 Tolk, Nathan Robert, 2780 S. Ocean Blvd., Palm Beach, Florida 33480
1959 Tucker, Elizabeth Mackay, Cedarcrest Hospital, Newington 06111
1957 Van Poznak, Frederick, #2 Rivermeade Ct., Ranelagh Gardens, London, England SW6-3RT
1971 Walker, Granville Inman, Jr., The Chase Manhattan Bank, New York, New York 10015
1946 Williams, Francis Pryor Anthony, 2100 N. Peninsula Ave., New Smyrna Beach, Florida 32069
1958 Willis, Thayer, 2757 N.E. 31st, Lighthouse Point, Florida 33064
1953 Zehrung, William John, P.O. Box B, New Milford 06776

Hartford County Association

President: Merrill B. Rubinow, 320 Main, Manchester 06040
Vice-President: Lawrence B. Ahrens, 300 Main, New Britain 06051
Secretary-Treasurer: Arthur D. Keefe, 477 Conn. Blvd., East Hartford 06108
Councilor: Joseph S. Sadowski, 212 Ashley, Hartford 06105
Associate Councilors:
Roger S. Beck, 85 Jefferson, Hartford 06106
Trudeau M. Horrax, 151 Waterville Rd., Farmington 06032
Executive Director: Mr. Joseph L. Gordon
Executive office: 1000 Asylum Ave., Hartford 06105
Annual Meeting, First Wednesday in April
Semi-Annual Meeting, Fourth Wednesday in September

AVON 06001

1976 Candels, Lothar Richard, 2 Mountain View Ave.
1974 Cohen, Ronald H., 18 West Avon Rd.
1975 Farraye, Joseph J., 20 West Avon Rd.
1964 Harrop, James Shields, 51 Hitchcock Lane
1961 Koff, Arnold M., Avon Professional Center
1946 Larson, Albert Lloyd, 104 Reverknolls
1961 Lynch, Mark Edward, Avon Professional Center
1943 Marinaro, Nicholas Anthony, 51 Westridge Dr.
1973 Norbert, Gary Francis, 18 West Avon Rd.
1959 Orgun, Ibrahim Necmi, 44 Craigmore Circle
1973 Schubert, Anthony Stephen, 20 West Avon Rd.
1931 Standish, Welles Adams, 24 Crocus Lane
1949 Williams, William Edward, West Avon Rd.

BERLIN 06037

1932 Seibert, Alfred Frank, 1511 Farmington Ave.

BLOOMFIELD 06002

1956 Alderman, Melville Yale, 701 Cottage Grove Rd.
1949 Bagnall, Richard Salmon, 616 Bloomfield Ave.
1947 Bernstein, Louis, 3 East Lane
1965 Borden, Walter A., 701 Cottage Grove Rd.
1974 Callan, Walter Michael, 701 Cottage Grove Rd.
1952 Carrabba, Salvatore R., 701 Cottage Grove Rd.
1943 Chester, Lewis L., 701 Cottage Grove Rd.
1975 Cohen, Robert B., 701 Cottage Grove Rd.
1975 Das, Amal, 701 Cottage Grove Rd.
1975 Edelstein, Barbara L., 701 Cottage Grove Rd.
1974 Elazegui, Rosalinda A., Conn. General Life Ins. Co.
1976 Fischer, Nathan Roberto, 701 Cottage Grove Rd.
1971 Gandel, Paul Nelson, 701 Cottage Grove Rd.
1974 Geetter, Albert L., 701 Cottage Grove Rd.
1947 Gurwitz, Jack, 701 Cottage Grove Rd.
1967 Harris, Robert Lester, 701-B Cottage Grove Rd.
1931 Hirshberg, Manuel Shelton, 23 Oak Lane
1973 Hoffman, Lee Ira, 701 B Cottage Grove Rd.
1963 Hurwit, Albert Coleman, 701 Cottage Grove Rd.
1956 Knox, A. E. Hertzler, 125 Wadhams Rd
1977 Lazarus, Barry Alan, 701 C Cottage Grove Rd.
1965 Levine, Marvin, 41 Jerome Ave.
1933 Liebowitz, Seymour A., 701 Cottage Grove Rd.
1976 Malik, Javed Mahmood, 701 Cottage Grove Rd.
1975 Mantel, Fred, 701-A Cottage Grove Rd.
1952 Marshall, Daniel, 701 Cottage Grove Rd.
1975 Miller, Bennett, 41 Jerome Ave.
1974 Miller, Joel Michael, 711 Cottage Grove Rd.
1947 Miller, Seymour M., 8 West View Dr., Apt. F.
1960 Newell, Richard Clark, 711 Cottage Grove Rd.
1975 Nova, Sheldon, 701-D Cottage Grove Rd.
1962 Richman, Sidney Morris, 701 Cottage Grove Rd.
1973 Rimai, Mervyn Leon, 1 Regency Dr.
1933 Rosenthal, Irving Isaac, 701-C Cottage Grove Rd.
1974 Saxon, Ronald J., 701 Cottage Grove Rd.
1962 Schmoll, Ralph Dale, 711 Cottage Grove Rd.
1964 Sereda, Lawrence Evans, 701 Cottage Grove Rd.
1936 Slossberg, David Seymour, 1045 Blue Hills Ave.
1973 Srinivasan, Jane Padmini, 1 Regency Dr.
1973 Stern, P. Gary, 701 Cottage Grove Rd.
1974 Sunkin, David Frederick, 701-C Cottage Grove Rd.
1971 Ungar, Joseph Irwin, 1 Regency Dr.
1958 Vecchiolla, John Anthony, 701 Cottage Grove Rd.
1971 Weiss, Stephen A., 701 Cottage Grove Rd.
1975 Werner, Herbert Jay, 41 Jerome Ave.
1973 Wyse, L. Arnold, 701 Cottage Grove Rd.

BRISTOL

1968 Alisberg, Norman, Bristol Hospital 06010
1976 Allam, Abdel F., 196 Woodland 06010
1966 Argall, Temby Richie, Bristol Hospital 06010

1957 Ayotte, Lionel Alfred, 45 Prospect 06010
1976 Bae, June G., P.O. Box 837
1970 Bagdasarian, Ara Der, 105 Woodland 06010
1975 Baltazar, Arturo Erfe, P.O. Box 255 06010
1973 Baptist, Vincent, 291 Queen 06010
1967 Bean, Kenneth Forte, 199 Riverside Ave. 06010
1934 Beatrice, Alphonse Anthony, 331 Main 06010
1948 Becker, Arnold H., 300 Main 06010
1958 Becker, Irwin William, 300 Main 06010
1936 Bird, Frederick Stamford, 12 Collins Rd. 06011
1947 Brezina, Philip Savage, 105 Woodland 06010
1946 Ciccarelli, Armanno William, 291 Queen 06010
1975 Diaz, Oliver Balicat, 202 Queen 06010
1975 Doura, Marc Edouard, 472 Stafford Ave. 06010
1956 Driscoll, Arthur Joseph, 123 Maple 06010
1962 Erami, Mohammad, 75 High 06010
1973 Estela, Jose A., 94 Bellevue Ave. 06010
1976 Falk, Stuart, 3 Woodland 06010
1973 Flores, Pacifico G., 88 Goodwin 06010
1935 Flynn, William Henry, 12 Carleton Pl. 06010
1964 Fox, Edward Francis, 300 Main 06010
1947 Furniss, William Ernest, 190 Summer 06010
1958 Glass, Herbert Lee, 300 Main 06010
1937 Hall, Martin Irving, 752 Hill 06010
1946 Hanley, J. Bainbridge, Peacedale 06010
1952 Hershey, David Daniel, 101 Woodland 06010
1948 Hershman, Harry Herbert, 122 Maple 06010
1954 Holden, Wesley Wiberg, 291 Queen 06010
1963 Ill, Martin F., 291 Queen 06010
1962 Jensen, Gerald Otto F., 780 Farmington Ave. 06010
1975 Kaye, David Elliot, 300 Main 06010
1976 Kaye, Stephen Joel, 122 Maple 06010
1975 Kish, Leslie Stanley, Bristol Hospital 06010
1964 Labraico, James Michael, 51 High 06010
1951 LaPorte, Thomas Francis V., 33 Puritan Rd. 06010
1968 McClure, Philip Hutson, 300 Main 06010
1965 McDermott, George Michael, 35 Woodland 06010
1974 Mendoza, Jose Porciuncula, 258 Middle 06011
1963 Mirabelli, Vittorio, 11 Harrison 06010
1974 Murray, Walter Charles, 122 Maple 06010
1973 Oceretko, Jaroslav, 56 Harrison 06010
1952 Perry, Douglas Dards, 1 Bellevue Ave. 06010
1946 Purney, John, 300 Main 06010
1970 Rappaport, Lawrence Neil, 300 Main 06010
1972 Robles, Mario Jose, 88 Goodwin 06010
1959 Russell, Donald Grant, 300 Main 06010
1961 Seguljic, Nicholas J., 202 Queen 06010
1969 Selsky, Leonard Mark, 683 Farmington Ave. 06011
1939 Tirella, Fred Francis, 85 Belden Gardens Dr. 06010
1957 Williamson, Robert James, 104 Stearns 06010
1934 Winters, Hyman W., 58 Bel Eden Gardens Dr. 06010
1930 Winters, Thomas Edgar, 103 Woodland 06010
1975 Wong, Shue W., Bristol Hospital 06010

BROAD BROOK 06016

1977 Csemy, Antal, 107 Main

BURLINGTON 06085

1966 Lawlor, Eugene Francis, RFD #2, Summit Dr.

CANTON 06019

1977 Abraham, Richard Ira, Canton Professional Ctr.

COLLINSVILLE 06022

1949 Diters, Edward Nelson, Gildersleeve Ave.
1963 Kresge, Dwight J., RFD #1, Warner Rd.
1969 West, Harold Frederic, 64 Maple Ave.

EAST HARTFORD

1948 Acqua, Louis C., 40 Elm 06108
1969 Berger, Jonathan, 477 Connecticut Blvd. 06108
1967 Cameron, Ian Richard, 111 Founders Plaza 06108
1976 Cihak, Helena, 477 Connecticut Blvd. 06108
1970 Danigelis, James Arthur, 477 Connecticut Blvd. 06108
1948 Danyliw, Joseph Michael, 110 Main 06118
1976 Daukas, Charles, 809 Main 06108
1968 DeFusco, Leonard Anthony, 477 Connecticut Blvd. 06108
1962 Fitgerald, James Richard, 477 Connecticut Blvd. 06108
1966 Fogg, Lyman B., 477 Connecticut Blvd. 06108
1976 Gagnon, Paul Maurice, 477 Connecticut Blvd. 06108
1946 Golino, Emanuel Francis, 164 Main 06118
1957 Gustafson, Walter Elmer, 45 Connecticut Blvd. 06108
1955 Keefe, Arthur Dillon, 477 Connecticut Blvd. 06108
1965 Knights, William, 477 Connecticut Blvd. 06108
1974 Krenicky, Peter T., 477 Connecticut Blvd. 06108
1955 Loewenberg, Peter Christian, 33 Brown 06118
1934 Lublin, Raymond, 751 Main 06108
1939 Mirabile, Thomas Joseph, 59 Burnside Ave. 06108
1947 Murphy, John Joseph, 27 Wells Ave. 06108
1965 Palma, Joseph Francis, 477 Connecticut Blvd. 06108
1975 Pina, Burt D., 477 Connecticut Blvd. 06108
1953 Saunders, William Long, 12 Mayflower 06110
1948 Sirota, Harvey H., 3 Saunders 06108
1955 Stearns, Colby Starnaman, 447 Connecticut Blvd. 06108
1967 Sullivan, Robert Michael, 447 Connecticut Blvd. 06108
1974 Tandon, Kishan Narain, 477 Connecticut Blvd. 06108
1942 Trantolo, Arthur, 1559 Main 06108
1973 Zimmerman, Richard Steven, 49 Connecticut Blvd.

EAST HARTLAND 06027

1938 Birge, Henry L., North Granby Rd.

ELMWOOD 06110

1975 Giligian, John, 1166 New Britain Ave.
1932 Romaniello, Rocco John, 1086 New Britain Ave.

ENFIELD 06082

1976 Arbulu, Alfredo A., 535 Hazard Ave.
1976 Durrani, Jehangir, 810 Enfield
1960 Figueroa, Francis Javier, 258 Hazard
1976 George, Sebastian Parisutham, Enfield Professional Center
1977 George, Lily, 150 Hazard Ave.
1970 Himelstein, Samuel Carl, 810 Enfield
1968 Hollander, Jules S., 5 North Main
1971 Mathews, John, 150 Hazard Ave.

FARMINGTON 06032

1946 Barbour, Paul Humphrey, Jr., 2 High
1970 Blechner, Jack Norman, Univ. Conn. School of Medicine
1970 Burnham, Bruce E., 340 Main
1970 Carignan, Roland Zephirin, 26 Lake Shore Dr.
1973 Choi, Chang Song, 10 Candlewood La.
1964 Davenport, John Joseph, Jr., 287 Main
1975 Galvin, J. Robert, Univ. Conn. Health Ctr.
1971 Gross, Elliot M., P.O. Box 427
1960 Hillemeir, Herbert, 51 Dorset Lane
1968 Hinz, Carl Frederick, Jr., Univ. Conn. School of Medicine
1965 Horrax, Trudeau M., 151 Waterville Rd.
1959 Jones, Emily Edwards, 273 Main
1974 Kang, Juliana Haeng Cha, 10 Candlewood La.
1974 Katz, Alfred J., 209 Farmington Ave.
1967 Leach, Charles Nelson, Jr., 174 Main
1968 Lepow, Irwin Howard, Univ. Conn. Health Center
1968 Lepow, Martha Lipson, Univ. Conn. Health Center
1974 MacDonald, Robert James, 24 Ridgeview Dr.
1976 Maresh, Henry Randall, 2 High

1970 Massey, Robert Unruh, Univ. Conn. School of Medicine
1963 Mauck, F. Taylor, 1 Mill Lane
1933 Mirabile, Charles S., 34 Mountain Rd.
1975 Mozzicato, Sebastian, Dir. Alcohol Tr. Prog, Univ. Conn. Health Ctr.
1941 O'Connell, Enos Joseph, 12-B Greenbriar Dr.
1970 O'Rourke, James, Univ. Conn. Health Center
1966 Patterson, John W., Univ. of Conn. Health Ctr.
1929 Pike, Maurice Mitchell, Old Mountain Rd.
1976 Puri, Savita, Univ. Conn. Health Center
1957 Sherpick, William Edwards, 1 Mill Lane
1975 Silverman, Samuel Morris, 263 Farmington Ave.
1963 Stockwell, Richard Matheson, Univ. Cinn. Health Ctr.
1968 Sunderman, Frederick William, Jr., Univ. Conn. School of Medicine
1966 Walker, James Eliot Cabot, Univ. Conn. Health Ctr.

FORESTVILLE 06011

1931 Frost, Lawrence Hubbard, 14 Fireside Lane

GLASTONBURY 06033

1976 Balakrishna, Srimathi, 2900 Main
1960 Baxter, Marion Florence, 315 Tall Timbers Rd.
1970 Drury, Robert Warwick, 2900 Main
1935 Griswold, Edwin Monroe, 2869 Main
1977 Gundersen, Charles Arthur, 301 Tall Timbers Rd.
1976 Henry, William Bond, 2900 Main
1973 Horrigan, Thomas Henry, 87 Karen Lee Rd.
1950 Lohman, William Henry, 2900 Main
1973 McDonald, June, 2638 Main
1971 Mintell, David Frederick, 124 Hebron Ave.
1975 O'Connor, Christopher Francis, 2900 Main
1949 Platz, Edward John, 100 Brookhaven Dr.
1957 Preble, Charles Richmond, 2638 Main
1969 Price, John Thomas, 2900 Main
1939 Raffa, Joseph, 2638 Main
1961 Rentsch, Juanita Brown, 242 Hubbard
1961 Rentsch, Samuel Burton, Jr., 242 Hubbard
1946 Ricca, Renato A., 28 Ripley Rd.
1961 Taylor, Richard Fiske, 259 Three Mile Rd.
1975 Vacek, William John, 124 Hebron Ave.

SOUTH GLASTONBURY 06073

1958 Bellucci, Aldo Louis, 34 Lakewood Rd.

GRANBY 06035

1968 Barwick, Peter E., 50 Hartford Ave.
1975 Blomquist, William Stewart, 50 Hartford Ave.
1953 Dwyer, Ruth Tychsen, 261 Salmon Brook
1952 Dwyer, William John, 261 Salmon Brook

HARTFORD

1961 Alden, John Ordway, 151 Farmington Ave. 06115
1975 Alder, William C., 660 Prospect Ave. 06105
1975 Allan, Thomas Renard, 85 Jefferson 06106
1941 Allen, John Clinton, Hartford Hospital 06115
1974 Allmendinger, Philip D., 85 Jefferson 06106
1970 Allport, Vernon Garfield, 99 Pratt 06103
1969 Alter, Burton Norman, 85 Jefferson 06106
1968 Amato, Peter Robert, 21 Woodland 06105
1970 Anastasi, Anthony Frank, 21 Woodland 06105
1953 Anderson, Gustav Walter, 85 Jefferson 06106
1958 Andrews, A. Ezra, Mt. Sinai Hospital 06112
1976 Andrulonis, Paul A., Institute of Living 06106
1936 Apter, Harry, 99 Pratt 06103
1976 Aronson, Alfred Lars, Mt. Sinai Hospital 06112
1952 Aseltine, Deal T. Jr., 283 Collins 06105
1965 Asuncion, Celedonio Manuel, St. Francis Hospital 06105
1964 Babcock, Albert Lethiccq, 100 Retreat Ave. 06106
1976 Babenco, George O., St. Francis Hospital 06105
1972 Baggish, Michael S., Mt. Sinai Hospital 06112
1968 Bagnall, John S., 85 Jefferson 06106
1970 Bailey, Richard H., 1 American Row 06103
1959 Baker, Gerald Lynn, 85 Jefferson 06106
1957 Baltrucki, Henry Chester, 140 Woodland 06105
1954 Barald, Fred Charles, 1000 Asylum Ave. 06105
1976 Barreto, Anibal Ramon, 85 Jefferson 06106
1964 Bartus, Stanislaus Anthony, 85 Jefferson 06106
1958 Basile, John X. R., 140 Woodland 06105
1975 Bass, David M., 85 Jefferson 06106
1972 Basu, Subrata K., 140 Woodland 06105
1949 Beakey, John Francis, 287 Collins 06105
1957 Beck, Roger Seaton, 85 Jefferson 06106
1948 Beckett, Ronald Stewart, Hartford Hospital 06115
1944 Beebe, John Taylor, 85 Jefferson 06106
1950 Bellizzi, Joseph John, 60 Gillett 06105
1962 Bendett, Rodman Jordan, 60 Gillett 06105
1968 Berland, Robert Howard, 21 Woodland 06105
1962 Berlin, Bert B., 85 Jefferson 06106
1968 Black, James C., 51 Gillett 06105
1974 Blanchard, Bradford Martin, 85 Jefferson 06106
1975 Bloom, George Peter, 85 Jefferson 06106
1941 Bobrow, Aaron, 500 Blue Hills Ave. 06112
1963 Boelhouwer, Cornelis, 80 Seymour 06115
1962 Bonney, Henry Thurston, Hartford Hospital 06115
1957 Book, Donald Thompson, 151 Farmington Ave. 06115
1967 Boren, Charles Wilson, 200 Retreat Ave. 06115
1970 Bower, Bruce F., 100 Retreat Ave. 06106
1951 Braceland, Francis J., 200 Retreat Ave. 06115
1975 Bradley, Donald F. Jr., 85 Jefferson 06106
1941 Brandon, Kenneth Francis, 128 North Oxford 06105
1969 Brenneman, Austin Russell, 85 Jefferson 06106
1946 Brewster, William B. Jr., 85 Jefferson 06106
1972 Bridburg, Richard Martin, 200 Retreat Ave. 06106
1974 Broadhead, Alan John, 100 Retreat Ave. 06106
1976 Bronson, William Raymond, Hartford Hospital 06115
1975 Brown, Borden, St. Francis Hospital 06105
1960 Brown, Donald Leroy, Hartford Hospital 06115
1970 Brown, Louis, 21 Woodland 06105
1954 Brown, Richard Braddock, 400 Washington 06106
1975 Brown, Stephen Allen, 140 Woodland 06105
1942 Bruskin, Chaim Elias, 1840 Park 06106
1966 Bucknam, Charles Allen, 100 Retreat Ave. 06106
1970 Bulaong, Rodolfo Gana, 60 Gillett 06105
1948 Bunce, James Merrill, 85 Jefferson 06106
1968 Burchell, R. Clay, Hartford Hospital 06115
1949 Butterfield, Walter Lamont, Jr., 85 Jefferson 06106
1957 Caldarelli, Raymond August, 140 Woodland 06105
1950 Calio, James Vincent, 21 Woodland 06105
1972 Calogero, John A., 212 Ashley 06105
1948 Carangelo, John, 140 Woodland 06105
1954 Carlton, Lawrence S., 560 Hudson 06106
1960 Carpentieri, Joseph, 21 Woodland 06105
1948 Cartland, John Everett, Jr., 85 Jefferson 06106
1965 Casale, Albert Joseph, 1000 Asylum Ave. 06105
1963 Castagno, Marion MacDonald, 215 Washington 06106
1949 Castagno, Rowe Anthony, 215 Washington 06106
1946 Chaucer, Norton G., 56 Coventry 06112
1976 Chawla, Surendra Kumar, 21 Woodland 06105
1976 Cinti, Dorothy Carroll, St. Francis Hospital 06105
1971 Clark, Isaiah, 100 Retreat Ave. 06106
1969 Clarke, William Augustin, Conn. Gen. Life Ins. Co. 06115
1959 Cobb, Richard J., 50 Canterbury 06112
1961 Coelho, Julio Nunes, 60 Gillett 06105
1936 Cogswell, Lawrence Perley, 85 Jefferson 06106
1938 Cohn, Samuel Hills, 111 Pearl 06103
1948 Cole, Milton Julius, 365 Blue Hills Ave. 06112
1965 Coley, Geoffrey MacDonell, 85 Jefferson 06106
1964 Collias, James Charles, 85 Jefferson 06106
1954 Conant, Roger Garrett, St. Francis Hospital 06105
1949 Conway, Edward Joseph, 85 Jefferson 06106

1955 Cooke, Ronald Wilbur, 85 Jefferson 06106
1960 Cooper, Paul A., 85 Jefferson 06106
1944 Cramer, Sidney Leo, 21 Woodland 06105
1963 Crawford, Jerry, 21 Woodland 06105
1969 Crombie, H. David, Jr., 85 Jefferson 06106
1962 Cronin, Robert John, 85 Jefferson 06106
1955 Cullen, Chester Francis, 1000 Asylum Ave. 06105
1954 Cullina, Joseph Charles, St. Francis Hospital 06105
1969 Cunin, Burton Maurice, 270 Constitution Plaza 06103
1961 Curis, Francis Thomas, 51 Gillett 06105
1968 Curran, John Joseph, Institute of Living 06106
1946 Curran, Timothy Leonard, 106 Gillett 06105
1972 daCosta, Jose Ferreira, 631 Park 06106
1974 Dake, Peter Denteh, 31 Woodland 06105
1970 D'Alotto, John Anthony, 1000 Asylum Ave. 06105
1955 Daniels, Evans Howard, Jr., 520 Albany Ave. 06120
1976 Daoud, Ibrahim Michael, 140 Woodland 06105
1968 Dauphinais, Richard Murray, St. Francis Hospital 06105
1972 DeCarolis, Kenneth A., 85 Jefferson 06106
1954 deChabert-Ostland, Jean Guido, 60 Gillett 06105
1966 DeGraff, Arthur C. Jr., 85 Jefferson 06106
1952 Delgado-Fourzan, Enrique, 200 Retreat Ave. 06106
1946 Delligan, Francis William, 31 Woodland 06105
1966 DeMaio, John Thomas, 283 Collins 06105
1947 Deming, Archibald Staley, 85 Jefferson 06106
1949 Deming, Edward Griswold, 85 Jefferson 06106
1954 Denton, Cleveland Ray, 85 Jefferson 06106
1931 DePasquale, Francis Lawrence, 1992 Broad 06114
1937 DePasquale, John Anthony, 182 Collins 06105
1975 Deutsch, Joel, 500 Blue Hills Ave. 06112
1973 Dickson, Charles Malcolm, 85 Jefferson 06106
1931 Dion, Asa Joseph, 207 Washington 06106
1944 Dion, Julien Andre, 207 Washington 06106
1966 Dobrow, Robert Jay, 85 Jefferson 06106
1944 Doerr, William John, 690 Prospect Ave. 06105
1955 Doherty, Robert C., 31 Woodland 06105
1951 Donnelly, John, 200 Retreat Ave. 06106
1958 Donovan, James Frederic, 85 Jefferson 06106
1957 Donovan, Thomas Joseph, 85 Jefferson 06106
1965 Dougherty, Anthony James, St. Francis Hospital 06105
1962 Dowling, Kevin Vernon, 1000 Asylum Ave. 06105
1974 Duboczy, John Bela, 400 Washington 06106
1971 Dunn, Harrison, 171 Girard Ave. 06105
1951 Dunsmore, Rembrandt Harvey, 85 Jefferson 06106
1946 Dushane, Joseph Edward, 85 Jefferson 06106
1954 Eagan, E. Cecil, 114 Woodland 06105
1971 Edelstein, Stanley W., 449 Farmington Ave. 06105
1965 Edkin, Robert Edward, 21 Woodland 06105
1977 Elazequi, Idillio A., 79 Elm 06115
1948 Ellis, William Avery, 1000 Asylum Ave. 06105
1974 Ellison, Lee H., 85 Jefferson St. 06106
1969 Enowitch, Bennett, Irving, 60 Washington 06106
1962 Ergin, Muceddit Tahsin, 85 Jefferson 06106
1973 Evans, Jerome Edward, Institute of Living 06106
1975 Fahy, Richard A., 660 Prospect Ave. 06106
1961 Faiaz, Esmail K., 21 Woodland 06105
1949 Fairlie, Chester Wilson, Jr., 85 Jefferson 06106
1967 Fauliso, Richard Joseph, 283 Collins 06105
1919 Fay, William James, 98 Garden 06105
1967 Feldman, Paul, 60 Gilbert 06105

1975 Fenelon, Ernst, 1229 Albany Ave. 06112
1974 Ferrero, Vittorio, 400 Washington Ave. 06106
1977 Feuer, Michael Warren, 60 Gillett 06105
1957 Fieldman, Arnold, Hartford Hospital 06115
1954 Fierberg, A. Arthur, 21 Woodland 06015
1967 Fisher, Robert Lyle, 85 Jefferson 06106
1962 Fishman, Ronald Stanley, 1000 Asylum Ave. 06105
1951 Flaherty, Morgan Vincent, 36 Woodland 06105
1969 Flescher, Robert, 85 Jefferson 06106
1948 Foohey, Fleur Cornelius, 146 Jefferson 06106
1977 Fortier, Alexander Joseph, 85 Jefferson 06106
1964 Fortin, Victor Louis, Jr., St. Francis Hospital 06105
1973 Foster, James Henry, 85 Jefferson 06106
1964 Fox, Brendan Michael, 210 Ashley 06105
1947 Franco, John Estrela, 206 Ashley 06105
1968 Franklin, John B., 100 Retreat Ave. 06106
1968 Fredericks, Edward J., 85 Jefferson 06106
1956 Frederickson, Robert William, 85 Jefferson 06106
1956 Freedman, Myron Earl, 60 Gillett 06515
1970 Freymann, John Gordon, 999 Asylum Ave. 06105
1962 Friend, Hugh Borden, 100 Retreat Ave. 06106
1967 Gahm, Norman Henry, 85 Jefferson 06106
1974 Galen, Malcolm Arthur, 1000 Asylum Ave. 06105
1937 Galinsky, David, 35 North Whitney 06105
1967 Gambarini, Alberto Jose, 140 Woodland 06105
1971 Gaudio, Alexander R., 100 Retreat Ave. 06106
1967 Geary, Frederick Lawrence, 283 Collins 06105
1970 Geary, William John, 283 Collins 06105
1969 Geetter, David Meranski, 212 Ashley 06105
1931 Geetter, Isidore Stolper, 92 Fern 06105
1959 George, Anastasios B., 85 Jefferson 06106
1972 Gerber, Joanna Seydel, 85 Jefferson 06106
1949 Giardi, Leo Paul, 561 New Britain Ave. 06106
1963 Giarnella, Egidio, 285 Franklin Ave. 06114
1970 Gibbons, John Martin, Jr., 114 Woodland 06105
1941 Gibson, Forrest Davis, 85 Jefferson 06106
1937 Giuliano, Sebastian, 434 Franklin Ave. 06114
1957 Given, James Bartley, 85 Jefferson 06106
1976 Glass, William Henry, 59 Gillett 06105
1962 Glassman, Herman H., 60 Gillett 06105
1934 Glaubman, Henry Mitchell, P.O. Box 26, Blue Hills Station 06112
1965 Godar, Thomas Joseph, St. Francis Hospital 06105
1968 Godlash, Kenneth Michael, 79 Retreat Ave. 06115
1966 Gold, Bertram, St. Francis Hospital 06105
1968 Gold, Herbert, 99 Pratt 06103
1936 Gold, Louis Henry, 21 Woodland 06105
1965 Goldberg, Morton Harold, 50 Gillett 06105
1930 Goldenberg, Jacob Joseph, 832 Albany Ave. 06112
1952 Goldenberg, Philip Theodore, 140 Woodland 06105
1949 Goldenthal, Carol, 132 Jefferson 06106
1963 Goldman, Philip H., 99 Pratt 06103
1967 Golub, Grant Richard, 80 Seymour 06115
1962 Gorman, Arthur Thomas, 100 Retreat Ave. 06106
1970 Gorman, David Joseph, 210 Ashley 06105
1954 Gossling, Harry Robert, 85 Jefferson 06106
1935 Gould, Max Martin, 387 Blue Hills Ave. 06112
1972 Grace, Thomas William, 1000 Asylum Ave. 06105
1975 Graf, Thomas Michael, 387 Blue Hills Ave. 06112
1973 Graydon, Roland James, II, 85 Jefferson 06106
1969 Grayson, Donald Ross, 60 Washington 06106
1943 Greene, Gerald S., 85 Jefferson 06106
1971 Grey, Neil Jay, 60 Gillett 06105
1973 Grody, Marvin Henry, 50 Gillett 06105
1952 Gross, Norman David, 140 Woodland 06105
1974 Guillette, William, 151 Farmington Ave. 06115
1969 Haksteen, John Jacob, Mt. Sinai Hospital 06112
1975 Hall, Francis M., 140 Woodland 06105
1970 Halligan, Thomas Joseph, Jr., 1000 Asylum Ave. 06105
1954 Hamilton, T. Stewart, 80 Seymour 06115
1947 Hamlin, Charles H., 85 Jefferson 06106
1952 Hannan, William Stephen, 140 Woodland 06105
1975 Hardman, Donald R., 85 Jefferson 06106
1965 Hardy, James H., 85 Jefferson 06106
1938 Harris, Louis David, 242 Trumbull 06106
1957 Hart, William Edmund, 77 Canterbury 06112
1974 Hasson, Jack, Mt. Sinai Hospital 06112
1960 Haugh, John Denis, 140 Woodland 06105
1976 Hawkins, Harold Berton, 1000 Asylum Ave. 06105
1937 Hazen, Donald Robert, 36 Woodland 06105
1968 Healy, Joseph William, 287 Collins 06105
1965 Hedberg, David Leigh, 21 Woodland 06105

1959 Henken, Ernest Marvin, 21 Woodland 06105
1972 Hensley, Ronald Verne, 400 Washington 06106
1974 Herzog, Alfred, 85 Jefferson St. 06106
1972 Hewett, William Joseph, 100 Retreat Ave. 06106
1975 Hewitt, J. Kent, 21 Woodland 06105
1949 Hickcox, Curtiss Bronson, 85 Jefferson 06106
1969 Hickmon, Ned, 140 Woodland 06105
1976 Hild, David H., 100 Retreat Ave. 06106
1974 Hill, David Albert, 100 Retreat Ave. 06106
1974 Hill, Thomas Michael, Institute of Living 06106
1956 Himelstein, Monroe, 85 Jefferson 06106
1934 Hirschfeld, Otto Max, 140 Woodland 06105

1975 Hornblow, John Terry, 85 Jefferson 06106
1968 Horowitz, Benson Jay, 449 Farmington Ave. 06105
1955 Houck, John Howard, 200 Retreat Ave. 06106
1949 Howard, Laura Koon, 400 Washington 06106
1950 Howe, Edward Redfield, 85 Jefferson 06106
1959 Hughes, Calvin Thomas, Jr., 36 Gillett 06105
1962 Hull, Crawford, Hartford Hospital 06115
1953 Hulme, Stephen A., St. Francis Hospital 06105
1977 Humphrey, Chester Bowden, 85 Jefferson 06106
1936 Hurwitz, George Hillel, 99 Pratt 06103
1969 Hurwitz, Myron Robert, 660 Prospect Ave. 06105
1960 Hyun, Jayson, St. Francis Hospital 06105
1970 Iger, Howard G., 200 Retreat Ave. 06106
1968 Izard, Mark Whitaker, 85 Jefferson 06106
1961 Jacuch, Michael, 245 Wethersfield Ave. 06114
1934 James, Lewis Paul, 104 Gillett 06105
1948 Janzen, Arnold Herbert, 85 Jefferson 06106
1961 Jeresaty, Robert M., St. Francis Hospital 06105
1961 Johnson, Donald William, 85 Jefferson 06106
1951 Johnson, James C. Jr., 90 Washington 06115
1941 Johnson, Paul, 85 Jefferson 06106
1970 Jones, Richard F., III, 100 Retreat Ave. 06106
1976 Jones, William Dugmore, III, 100 Retreat Ave. 06106
1959 Josel, Mark, 21 Woodland 06105
1963 Kallfelz, Alois, St. Francis Hospital 06105
1955 Kaplan, Bernard Joseph, 21 Woodland 06105
1945 Karpe, Richard, 120 Kane 06119
1976 Kates, Richard Joel, 100 Retreat Ave. 06106
1924 Katz, Henry, c/o CBT Trust Dept., 1 Constitution Plaza 06115
1950 Kay, Richard, 85 Jefferson 06106
1960 Keefe, William Peter, 240 Ashley 06105
1977 Kellsey, David Canfield, 151 Farmington Ave. 06115
1920 Kelly, Claude Currie, 85 Jefferson 06106
1972 Kelly, Donald Robert, 85 Jefferson 06106
1950 Kemler, R. Leonard, 21 Woodland 06105
1960 Kiley, Robert Francis, 85 Jefferson 06106
1954 Kingston, Paul J., 1000 Asylum Ave. 06105
1966 Klatsky, Alan Usher, 100 Retreat Ave. 06106
1946 Klein, Joseph, 85 Jefferson 06106
1964 Kligerman, Sidney, 49 North Beacon 06105
1976 Knauft, Robert Frederic, 85 Jefferson 06106
1958 Knight, Harold Fuller, 140 Woodland 06105
1958 Knox, Kenneth Raven, 100 Retreat Ave. 06106
1970 Koff, Marvin Saul, 660 Prospect Ave. 06105
1954 Kosar, Walter Philip, 85 Jefferson 06106
1974 Kosto, Bernard, 85 Jefferson 06106
1944 Krall, Irving Hadley, 99 Pratt 06103
1973 Kramer, Robert Allyn, Mt. Sinai Hospital 06112
1956 Krieger, James L., 85 Jefferson 06106
1977 Krom, Elinor S., Mt. Sinai Hospital 06112
1962 Kuehn, Paul Gerhard, 85 Jefferson 06106
1964 Kugelman, Thomas Peter, 85 Jefferson 06106
1966 Laakso, William Bruce, 100 Retreat Ave. 06106
1949 Lahey, William J., St. Francis Hospital 06105
1971 Lahiri, Bimalin, 114 Woodland 06105
1963 Landry, Arthur Bernard, Jr., 114 Woodland 06105
1962 Langmann, Robert D., 85 Jefferson 06106
1943 Lapenta, Rocco George, 1307 Albany Ave. 06112
1972 Lashgari, Manocher, 21 Woodland 06105
1975 Lassman, M. Nathan, 1000 Asylum Ave. 06105
1976 Lazor, Michael Z., 85 Jefferson 06106
1951 Lee, William, Hartford Hospital 06115
1976 Lee, Wing Kwong, 500 Blue Hills Ave. 06112
1968 Lehman, William B., 85 Jefferson 06106
1962 Leicach, Mario, 85 Jefferson 06106
1956 Leonhardt, Charles George, Hartford Plaza 06115
1975 Lessow, Richard Joseph, 85 Jefferson 06106
1933 Levin, Albert Eliot, 242 Trumbull 06103
1954 Levreault, Gerald Victor, Conn. Gen. Life Ins. Co. 06115
1965 Levy, Benjamin, 85 Jefferson 06106
1971 Linburg, Richard Murray, 85 Jefferson 06106
1973 Lindenberg, Leslie Barre, 85 Jefferson 06106
1965 Linnolt, Erik, 200 Retreat Ave. 06106
1974 Lippman, Leonard, 449 Farmington Ave. 06105
1953 Lipton, Harold, Ct. St. Dept. of Health, Crippled Children Section 06115
1937 Lischner, Moses David, 35 Whitney 06105
1967 Liss, Joseph Paul, St. Francis Hospital 06105
1946 Litter, Leo, 21 Woodland 06105
1949 Little, David Mason, Jr., 80 Seymour 06115
1974 Lloyd, Douglas Seward, 79 Elm 06115
1955 Lo Presti, Daniel A., 85 Jefferson 06106
1957 Low, Henry Bei Chung, 85 Jefferson 06106
1959 Luby, Meade Justin, 140 Woodland 06105
1963 Lucas, Joseph John, 17 Sisson Ave. 06106
1970 Lynch, William A., 85 Jefferson 06106
1968 Macaulay, William Philip, 85 Jefferson 06106
1964 Mackay, Iain Murray, 85 Jefferson 06106
1919 Maislen, Samuel, 2138 Main 06120
1957 Malinconico, Lawrence Lorenzo, 136 Retreat Ave. 06106
1973 Manas, Alan, 270 Constitution Plaza 06103
1952 Mancall, Irwin Tuch, 21 Woodland 06105
1931 Mancoll, Morris Max, 242 Trumbull 06103
1967 Mancoll, William, 100 Retreat Ave. 06106
1971 Mannix, Henry, Jr., 114 Woodland 06105
1975 Marchbanks, Vance Hunter, Jr., 31 Woodland 06105
1976 Marino, Frank Sebastian, 51 Gillett 06105
1951 Markley, D. Norman, 422 Farmington Ave. 06105
1959 Marshall, Bruce Robert, 85 Jefferson 06106
1965 Martin, Robert Stockton, 80 Seymour 06106
1952 McAndrews, James Francis, 85 Jefferson 06106
1964 McCarthy, John Denis, 140 Garden 06105
1974 McCawley, Austin, St. Francis Hospital 06105
1975 McCloskey, Edwin M., St. Francis Hospital 06105
1962 McCooey, John Henry, 85 Jefferson 06106
1952 McCormick, James Michael, Hartford Hospital 06115
1938 McCrann, Donald Joseph, 36 Woodland 06105
1967 McGowan, George E., 85 Jefferson 06106
1950 McKnight, Robert Scott, 200 Retreat Ave. 06106
1949 McLean, Charles Ellsworth, Hartford Hospital 06115
1935 McNulty, Terence Francis, 22 North Beacon 06105
1972 Mendelson, Louis Moses, 85 Jefferson 06106
1973 Meridy, Howard William, 85 Jefferson 06106
1971 Milikow, Edward, 500 Blue Hills Ave. 06112
1937 Miller, Harry Bernard, 21 Woodland 06105
1975 Miller, Lawrence W., 100 Retreat Ave. 06106
1957 Mittelman, Jay Arnold, 21 Woodland 06105
1974 Mittelmann, Michael, 151 Farmington Ave. (W-A) 06115
1947 Moher, James J., 51 Gillett 06105
1954 Molloy, Robert Joseph, 1000 Asylum Ave. 06105
1966 Moloney, David Richard, 21 Woodland 06105
1977 Morrow, Jeffrey S., 85 Jefferson 06106
1972 Muangman, Pongsa-Pyn, 114 Woodland 06105
1973 Mucha, Theodore Frank, Institute of Living 06106
1970 Mueller, Robert Ernest, 85 Jefferson 06106
1977 Mumford, David, 615 Tower Ave. 06112
1975 Murphy, John D., St. Francis Hospital 06105
1972 Murray, James Hamilton, 85 Jefferson 06106

1969 Myerson, Manny, 1000 Asylum Ave. 06105
1957 Nakhoul, Jabbour, 21 Woodland 06105
1975 Narayanan, Chandra N., 500 Blue Hills Ave. 06112
1938 Neidlinger, William James, 85 Jefferson 06106
1962 Neill, Mather Humphrey, 151 Farmington Ave. 06115
1975 Newman, Richard Arthur, 85 Jefferson 06106
1946 Nichols, Edward, 85 Jefferson 06106
1947 Nichols, Frederick L., 85 Jefferson 06106
1952 Nicholson, Richard Edwin, 140 Garden 06105
1973 Nino, Alfredo F., 85 Jefferson 06106
1948 Nolan, John O'Leary, 206 Ashley 06105
1961 O'Brien, Frederick John, 1000 Asylum Ave. 06105
1976 O'Brien, John Joseph, 140 Woodland 06105
1944 O'Connell, John Daniel, 140 Woodland 06105
1952 O'Connell, Thomas Joseph, St. Francis Hospital 06105
1973 O'Hayre, Walter Louis, 55 Trumbull 06103
1973 O'Hurley, John George, 1000 Asylum Ave. 06105
1953 Opinsky, Morton, 140 Woodland 06105
1976 O'Reilly, David John, 114 Woodland 06105
1955 Ormrod, John Kenneth T., 151 Farmington Ave. 06115
1955 Otis, Richard Dickinson, Hartford Hospital 06115
1976 Oviedo, Alvaro, 1039 Asylum Ave. 06105
1976 Owlia, Dariush, 100 Retreat Ave. 06106
1958 Painter, Robert Warren, 85 Jefferson 06106
1963 Palermino, Donata Angelo, 136 Retreat Ave. 06106
1975 Parker, Lewis P., 100 Retreat Ave. 06106
1968 Pasternak, Herbert Stephen, 85 Jefferson 06106
1938 Peacock, Albert Upham, 85 Jefferson 06106
1976 Peck, Alexander S. Jr., 85 Jefferson 06106
1972 Pentz, Paul Gordon, 200 Retreat Ave. 06115
1976 Perkins, John H., 106 Gillett 06105
1944 Perkins, Joseph Augustine, 60 Gillett 06105
1975 Perlman, Sidney, 1000 Asylum Ave. 06105
1933 Phelps, Maxwell Overlock, 85 Jefferson 06106
1959 Phinney, Arthur O. Jr., 85 Jefferson 06106
1949 Piacente, Salvatore Sylvester, 140 Woodland 06105
1959 Pinkes, Sam, 21 Woodland 06105
1968 Pisetsky, Myron Matthew, 200 Retreat Ave. 06106
1944 Pitegoff, Gerald Irving, 60 Gillett 06105
1948 Pizzo, Paul S., 662 Wethersfield Ave. 06114
1967 Platt, Joan M., 85 Jefferson 06106
1976 Plaut, Eric A., 90 Washington 06115
1950 Polivy, Charles, 60 Gillett 06105
1975 Powell, Charles Porter, Hartford Life Insurance Co.,
Hartford Plaza 06115
1958 Powers, Edward Donald, 576 Farmington Ave. 06105
1948 Prestley, William Francis, 100 Retreat Ave. 06106
1949 Pulaski, John Edward, 40 Wethersfield Ave. 06114
1950 Pyrtek, Ludwig Joseph, 85 Jefferson 06106
1967 Quinto, Eugene Louis, 1000 Asylum Ave. 06105
1957 Radding, Philip, 60 Gillett 06105
1928 Radom, Myron Michael, 242 Trumbull 06103
1977 Ramanan, Sundaran Venkata, Mt. Sinai Hospital 06112
1966 Raycroft, John Francis, 85 Jefferson 06106
1964 Reardon, George Emmett, St. Francis Hospital 06105
1950 Reed, John Francis, 85 Jefferson 06106
1954 Reinfrank, Ralph Frank, Hartford Hospital 06115
1975 Rhee, Sang-Seol, 140 Woodland 06105
1972 Rich, Charles, 609 Farmington Ave. 06105
1963 Ridlon, Herrick Clark, 85 Jefferson 06106
1974 Rinaldi, Michael Joseph, Hartford Hospital 06115
1973 Ritland, Gerald David, 140 Woodland 06105
1973 Roberts, Lloyd Eugene, 136 Retreat Ave. 06106
1969 Roberts, Melville Parker, 85 Jefferson 06106
1973 Robertson, Russell Wright, 85 Jefferson 06106
1953 Robinson, John Christie, One Tower Sq. 06115
1973 Robinson, Paul D. Jr., 151 Farmington Ave. 06115
1943 Rocco, Mario P., 500 New Britain Ave. 06106
1948 Roh, Charles Ernest, 85 Jefferson 06106
1970 Rosenberg, Jack Eli, 400 Washington 06106
1966 Rosenberg, Mervin, 100 Constitution Plaza 06103
1965 Rosenthal, Moe Bernard, 1680 Albany Ave. 06105
1975 Rosenworcel, Elliott, 1000 Asylum Ave. 06105
1958 Ross, Wayne D., 85 Jefferson 06106
1965 Rossbaum, Robert Philip, 85 Jefferson 06106
1970 Rossi, Michael Andrew, 85 Jefferson 06106
1964 Rosson, Robert Stanley, 85 Jefferson 06106
1962 Rotatori, Eugene S., 111 Gillett 06105
1975 Rotenberg, Donald, 85 Jefferson 06106
1935 Roth, Frank Edward, 60 Gillett 06105
1963 Roth, Malcolm Shoor, 270 Constitution Plaza 06103
1957 Rouman, James Christ, 85 Jefferson 06106
1973 Roussis, Konstantinos, 1000 Asylum Ave. 06105
1946 Rubin, Albert, 60 Gillett 06105
1975 Ruderman, Mark, 85 Jefferson 06106
1948 Russo, Joseph Nicholas, 85 Jefferson 06106
1975 Russolillo, Gary Edward, 10 Woodland 06105
1953 Ryan, Willaim Francis, Jr., 104 Gillett 06105
1951 Sachs, Julius Johnson, 60 Gillett 06105
1963 Sadowski, Joseph Stanley, 212 Ashley 06105
1973 Salerno, Nicholas Richard, Mt. Sinai Hospital 06112
1976 Salgado, Arcadio Garde, 500 Blue Hills Ave. 06112
1956 Saltzman, Seymour Harold, 60 Gillett 06105
1973 Satlof, David M., 50 Gillett 06105
1937 Sayers, John Joseph, 865 Park 06106
1963 Sayers, John Henry, 660 Prospect Ave. 06105
1947 Schnap, Isidore, 85 Jefferson 06106
1946 Schwartz, Herbert Norman, 60 Gillett 06105
1973 Schwartz, Louis, 50 Gillett 06105
1972 Schweizer, Robert Thomas, 85 Jefferson 06106
1940 Scoville, William Beecher, 85 Jefferson 06106
1952 Scull, Edward, 85 Jefferson 06106
1977 Secor, Ralph Calvin, 140 Garden 06112
1957 Seide, Morris J., 85 Jefferson 06106
1948 Seigle, Stewart Pinnell, 85 Jefferson 06106
1973 Selcow, Jay Elliot, 85 Jefferson 06106
1975 Seneviratne, U. E., Mt. Sinai Hospital 06112
1952 Sennett, Edward Joseph, 114 Woodland 06105
1977 Serafini, Ferdinand Francis, St. Francis Hospital 06105
1942 Serbin, A. Frederick, 21 Woodland 06105
1960 Shafer, Myron Edward, 85 Jefferson 06106
1975 Shah, Suresh M., 500 Blue Hills Ave. 06112
1976 Shapiro, Howard Robert, Mt. Sinai Hospital 06112
1975 Shapiro, Ruben L., 100 Retreat Ave. 06106
1970 Sheehan, George Dunn, 1000 Asylum Ave. 06105
1947 Sherwood, Paul M., 400 Washington 06106
1951 Shoukimas, John, 21 Woodland 06105
1959 Sicklick, Elliot, St. Francis Hospital 06105
1974 Sigman, Robert Lewis, 85 Jefferson 06106
1954 Siker, Estelle, 23 Colebrook 06112
1975 Silk, Mark R., 140 Woodland 06105
1971 Silver, Herbert, 80 Seymour 06115
1973 Silverstein, H. Robert, 1000 Asylum 06105
1976 Slavin, James Dennis, Jr., St. Francis Hospital 06105
1968 Slover, William Pyle, Jr., 85 Jefferson 06106
1965 Smith, Jay, R. V., 85 Jefferson 06106
1956 Smith, Leonard Kelley, 1000 Asylum 06105
1944 Smith, W. Leslie, 100 Retreat Ave. 06106
1966 Soares, Manuel Joseph, 151 Farmington Ave. 06115
1943 Solomon, Rebecca Zinsher, 85 Jefferson 06106
1963 Speer, Christopher S., 85 Jefferson 06106
1951 Spillane, Richard, 85 Jefferson 06106
1941 Sponzo, James Joseph, 3 Webster 06114
1975 Springer, Thomas Duane, 60 Gillett 06105
1952 Stack, William J., 566 Prospect Ave. 06105
1963 Stavola, John Joseph, 78 Retreat Ave. 06106
1946 Steege, Theodore Walter, 85 Jefferson 06106
1962 Stent, Philip Anthony, St. Francis Hospital 06105
1949 Steven, Ranald James, 85 Jefferson 06106
1975 Stevens, Thomas J., 60 Gillett 06105
1974 Stoughton, Peter Van Cortlandt, Hartford Hospital
06115
1976 Straub, J. John, 85 Jefferson 06106
1971 Streeto, James Michael, 85 Jefferson 06106

1975 Sullivan, Paul R. C., 100 Retreat Ave. 06106
1957 Swain, Edward Bruce, 85 Jefferson 06106
1957 Sweet, Elliott Boyd, 85 Jefferson 06106
1948 Swett, Norris Poole, 1 Tower Sq. 06115
1977 Sylvan, Richard L., Mt. Sinai Hospital 06112
1974 Takata, Hiroyoshi, 85 Jefferson 06106
1970 Taylor, Peter Thurston, 85 Jefferson 06106
1957 Thaw, Benjamin Dows, 1039 Asylum Ave. 06105
1949 Thayer, John Ernest, 114 Woodland 06105
1957 Thomas, John B., 85 Jefferson 06106
1976 Thompson, Hartwell Greene, 85 Jefferson 06106
1938 Tonken, Louis Clarence, 487 Farmington Ave. 06105
1975 Tortora, Michael James, 283 Collins 06105
1953 Trench, James McKeehan, 200 Retreat Ave. 06106
1957 Tripp, William Henry, 85 Jefferson 06106
1965 Trowbridge, Phillip E., 85 Jefferson 06106
1946 Tucker, Charles Albert, 100 Retreat Ave. 06106
1959 Tucker, Jolyon Simeon, 85 Jefferson 06106
1950 Tulin, George Arthur, 85 Jefferson 06106
1947 Turco, Vincent Joseph, 1000 Asylum Ave. 06105
1972 Tyrrell, David Perry, 85 Jefferson 06106
1933 Uricchio, Joseph George, 40 Wethersfield Ave. 06114
1963 Vance, Joseph Addison, III, Conn. Gen'l Life Ins. Co. 06115
1960 Veeder, Raymond, 200 Retreat Ave. 06106
1952 Vernlund, Robert James, 85 Jefferson 06106
1950 Waltman, Irving, 85 Jefferson 06106
1937 Walton, Loftus Linwood, 85 Jefferson 06106
1976 Wand, Martin, 100 Retreat Ave. 06106
1955 Ward, Kenneth Eaton, Conn Gen'l Life Ins. Co. 06105
1950 Wardner, LeRoy Hamilton, 85 Jefferson 06106
1965 Warner, Allen, 85 Jefferson 06106
1964 Waterman, William Bullock, 151 Farmington 06105
1966 Watson, H. Kirk, 85 Jefferson 06106
1946 Wawro, N. William, 85 Jefferson 06106
1943 Weiner, Sylvia, 99 Pratt 06103
1976 Welch, John Paton, 85 Jefferson 06106
1955 Welhaven, Arne, 136 Retreat Ave. 06106
1948 Wells, Gideon Robbins, 21 Woodland 06105
1976 Wells, John B., 85 Jefferson 06106
1976 Wells, Kenneth Hubert, 85 Jefferson 06106
1963 Westcott, Jack Lawrence, 85 Jefferson 06106
1954 Wetstone, Howard Jerome, Hartford Hospital 06115
1974 Wheeler, Maynard Boynton, 100 Retreat Ave. 06106
1938 Whitcomb, Benjamin Bradford, 85 Jefferson 06106
1938 White, Benjamin Vroom, 85 Jefferson 06106
1960 White, Kenneth Howard, Jr., 60 Gillett 06105
1958 Whitehead, David Earle, Hartford Hospital 06115
1965 Wieche, Donald Richter, 85 Jefferson 06106
1951 Wiese, Chester Albert, Hartford Hospital 06115
1948 Wiesel, Benjamin, 85 Jefferson 06106
1962 Wilcox, David Sanborn, 100 Retreat Ave. 06106
1958 Williams, Henry M., 80 Seymour 06115
1930 Wilson, William Augustus, 841 Asylum Ave. 06105
1969 Winalski, H. Paul, 114 Woodland 06105
1959 Wolf, Arthur Dale, 85 Jefferson 06106
1959 Wolfson, S. Steven, 21 Woodland 06105
1976 Woo, Sybil Wong, 100 Retreat Ave. 06106
1933 Wood, Frank Oliver, 85 Jefferson 06106
1975 Woods, William Allen F., St. Francis Hospital 06105
1962 Woodhouse, Robert William, 85 Jefferson 06106
1949 Woodruff, John Harrison, 85 Jefferson 06106
1947 Zarkin, Oscar Howard, 44 Whitney 06105
1959 Zeller, William Webb, 200 Retreat Ave. 06106
1970 Zelman, Marvin, 85 Jefferson 06106
1973 Zeman, Peter Michael, 200 Retreat Ave. 06106
1948 Zimmerman, Leon Ward, 100 Retreat 06106
1970 Ziter, Fred M. H. Jr., 85 Jefferson 06106
1961 Zmijeski, Charles Jr., 1000 Asylum Ave. 06105

KENSINGTON 06037

1948 Chotkowski, Ludmil Adam, 1143 Chamberlain Hwy.
1967 Leicach, Jorge, 19 Clover Hill Pl.
1965 Lopez, Raul E., 320 New Britain Rd.
1930 Matteis, Joseph Theodore, 142 Mooreland Rd.
1938 Perakos, George Peter, 9 High Rd.
1940 Rosahn, Paul Dolin, 206 Ellwood Rd.
1961 Sultar, Robert Stephan, 320 New Britain Rd.
1974 Toffolon, Edward Peter, 9 High Rd.

MANCHESTER

1972 Ahn, William B., 27 Wyneding Hill Rd. 06040
1953 Baldwin, W. Howard, 341 Broad 06044
1937 Barry, Joseph Charles, 156 Main 06040
1971 Benavides, Carlos Gonzalo, 320 Main 06040
1946 Besser, Edward Lambert, 17 Haynes 06040
1961 Braat, John Peter, 265 Ludlow Rd. 06401
1960 Breer, Robert Dunwoody, 17 Haynes 06040
1973 Burns, Daniel W., 191 Main 06040
1952 Butterfield, Robert Kenneth, R.F.D. No. 2, Box 72
1957 Caldwell, David Manchester, Jr., 26 Haynes 06040
1966 Campbell, Iain Gordon, 153 Main 06040
1963 Charendoff, Leo 320 Main 06040
1976 Claps, Richard James, 353 Main 06040
1957 Demko, Richard Michael, 29 Haynes 06040
1940 Diskan, Albert Elmer, 29 Haynes 06040
1963 Duke, Martin, 26 Haynes 06040
1958 Eddy, John Randall, 124 Timrod Rd. 06040

1971 Ferrari, Dudley Alfred, 36 Haynes 06040
1966 Fialkoff, Ruben, Manchester Memorial Hospital 06040
1965 Flanagan, Edward P., 20 Jean Rd. 06040
1926 Friend, Amos Edgar, 36 Haynes 06040
1972 Ghabrial, Sobhy L., 342 Main 06040
1973 Golkar-Sisani, Firooz, Manchester Hospital 06040
1958 Gram, Peter Basil, 36 Haynes 06040
1974 Grossman, Donald Steve, 341 Broad 06040
1963 Guardino, Joseph John, 1049 Main 06040
1954 Guinan, Don Allen, 153 Main 06040
1955 Hamilton, Charles Raymond, Jr., 153 Main 06040
1952 Healy, Thomas McLean, 257 East Center 06040
1965 Heimann, Walter Gad, 353 Main 06040
1949 Helfrick, Francis Woodrow, 257 East Center 06040
1976 Helfrick, Sylvia Merrill, 104 Haynes 06040

1970 Hendessi, Hossain, 320 Main 06040
1951 Herman, Ralph Scallon, Jr., 9 Sanford Rd. 06041
1950 Horton, Frank Hamilton, 17 Haynes 06040
1957 Horwitz, Melvin, 29 Haynes 06040
1944 Jacobson, Charles Edward, Jr., 172 East Center 06040
1972 Kahaner, Harvey Allen, 320 Main 06040
1957 Karns, Robert Earl, 353 Main 06040
1936 Keeney, Robert Raymond, Jr., 29 Haynes 06040
1969 Kim, Cyril K., 342 Main 06040
1971 Klipstein, Arnold Lloyd, 153 Main 06040
1972 Klipstein, Eve Adele, 153 Main 06040
1968 Krupp, Alan Fred, 26 Haynes 06040
1971 Kurien, V. Abraham, 29 Haynes 06040
1975 Kuru, Ranjit Layanande, 342 Main 06040
1950 Lehmus, Harold J., 56 Haynes 06040
1948 Lockward, Howard Jefferson, 44 Haynes 06040
1921 Lundberg, George Albin Ferdinand, 223 East Center 06040
1957 Lundberg, George Albin Ferdinand, Jr., 153 Main 06040
1953 Malone, Harold John, 153 Main 06040
1952 Marzialo, Nicholas A., 15 Middle Tpke., West 06044
1969 Meisner, Burton M., 320 Main 06040
1964 Milewski, Stanislaw Antoni, 191 Main 06040
1946 Miller, Gerard Roland, 17 Haynes 06040
1977 Mordavsky, Donald Francis, 341 Broad 06040
1950 Morrison, Donald William, 17 Haynes 06040
1951 Moyer, Winfield Tyson, Jr., 36 Haynes 06040
1977 Nieto, Ramon Alejandro, 56 Haynes 06040

1969 Nix, Harold Robert, 191 Main 06040
1963 Norman, Paul Stuart, 320 Main 06040
1974 Nosce, Luis Valdehuesa, 150 North Main 06040
1976 Passaretti, Michael, 36 Haynes 06040
1957 Pastel, Harvey, 257 East Center 06040
1952 Platz, Joseph, 6 Bates Rd. 06040
1975 Purcell, Daniel Paul, 150 North Main 06040
1957 Roberts, Douglas James, Jr., 353 Main 06040
1975 Rodner, Robert D., 320 Main 06040
1971 Romeo, Stephen Gerard, 191 Main 06040
1947 Rosen, Theodore, 808 Main 06040
1965 Rubin, Martin Lewis, 29 Haynes 06040
1951 Rubinow, Merrill Benjamin, 320 Main 06040
1976 Saini, Om P., 257 East Center 06040
1951 Schardt, Walter Mallory, 191 Main 06040
1973 Shakibai, Ali, 153 Main 06040
1976 Sinatra, Stephen Thomas, 466 Woodland 06040
1960 Smith, Douglas Humbert, 153 Main 06040
1971 Smith, Samuel Goodale, 191 Main 06040
1956 Snyder, Herbert Leon, 353 Main 06040
1975 Sobin, Bruce A., 341 Broad 06040
1974 Song, Soonhi, 320 Main 06040
1957 Stanton, Robert Eugene, 153 Main 06040
1961 Sulick, Edward Joseph, 315 East Center 06040
1959 Sumner, Philip Edward, 191 Main 06040
1937 Sundquist, Alfred Bernhardt, 17 Haynes 06040
1976 Tan, Frederick S., 15 West Middle Turnpike 06040
1971 Tehrani, Hossein Limoui, 320 Main 06040
1950 Thomas, Andrew Henry, 36 Haynes 06040
1974 Turek, Alice Jaros, Health Director c/o Town Hall 06040
1953 Walden, Robert Clarence, Jr., 17 Haynes 06040
1968 Wheeler, John Paul, 191 Main 06040
1970 Wickersham, C. Wendell, III, 44 Haynes 06040
1975 Zariphes, Constantine, 99 East Center 06040

MARLBOROUGH 06424

1965 Schreuder, Otis Blaine, South Rd.

NEW BRITAIN

1957 Ahrens, Lawrence Bernard, 300 Main 06051
1975 Balakrishna, Hanumanthaiah, New Britain General Hospital 06050
1952 Bayer, Alexander Eli, 233 Main 06051
1972 Bee, Rudolf W., 800 Corbin Ave. 06051
1957 Belkin, Joseph William, 40 Hart 06052
1948 Bellach, Harry, 300 Main 06051
1974 Belman, David Arthur John, 40 Hart 06052
1957 Bernstein, Abraham, 33 Lexington 06052
1959 Bernstein, Chester Murray, 233 Main 06051
1934 Bernstein, Dwight J., 1 Ten Acre Rd. 06052
1963 Blank, Gerald Issar, 601 Farmington Ave. 06053
1974 Blau, Jeffrey S., 40 Hart 06052
1930 Blogoslawski, Walter Joseph, 199 West Main 06052
1958 Bower, Russell Stanley, 73 Cedar 06052
1957 Bray, George Henry, 73 Cedar 06052
1927 Buol, Robert Stanley, 91 Ten Acre Rd. 06052
1961 Byer, Seymour, 40 Hart 06052
1975 Cavo, John William Jr., 30 Bank 06051
1964 Clapp, Paul, Grove Hill Clinic 06050
1946 Clark, Bliss Bartlett, 92 Grand 06052
1945 Clarke, Harold Metcalf, 40 Hart 06052
1969 Cosentino, Robert Thomas, 300 Kensington Ave. 06051
1952 Crothers, Charles Henry, 300 Kensington Ave. 06051
1965 Crowley, Joseph William, 233 Main 06051
1963 Dalburg, Lewis Arthur, Jr., 300 Kensington Ave. 06051
1931 Darrow, John Edward, 35 West End Ave. 06052
1962 Dinep, Martin, 100 Grand 06052
1970 Doctoroff, Stephen John, 300 Kensington Ave. 06051
1960 Dorfman, George, 40 Hart 06052
1941 Dorian, Edward, 48 Roslyn Dr. 06052
1973 Dragon, Robert Edward, 73 Cedar 06052
1969 Dressler, David M., New Britain Gen. Hosp. 06050
1947 Dunn, Morris L., 300 Main 06051
1942 Eisenberg, Sidney Edwin, 33 Lexington 06052
1970 Enriquez, Alfonso Raymundo, 300 Kensington Ave. 06051
1976 Feinglass, Edward Joel, 40 Hart 06052
1963 Fenaughty, Richard W., 300 Kensington Ave. 06051
1969 Filewicz, Stanley Peter, 55 West Main 06051
1971 Folk, Joseph John, Grove Hill Clinic 06050
1960 Formica, Joseph J., 73 Cedar 06052

1974 Geoghegan, John William, 100 Grand 06050
1974 Giertz, William Edward, New Britain Gen. Hosp. 06050
1974 Gladstone, Todd M., 73 Cedar 06052
1943 Greenblatt, Harold Joseph, 73 Cedar 06052
1974 Gryboski, Robert Andre, 30 Bank 06050
1964 Gryboski, William A., 73 Cedar 06052
1966 Harwin, S. Martin, 300 Kensington Ave. 06051
1962 Hawkes, Peter Harold Robert, 19 Bassett 06051
1951 Herr, Herbert Harvey, 300 Kensington Ave. 06051
1967 Hicks, Robert Edward, 70 West Main 06051
1974 Howard, Rufus Oliver, 300 Kensington Ave. 06052
1970 Jacobson, James J., 40 Hart 06052
1958 Jarboe, Edward J., 300 Kensington Ave. 06051
1977 Johnson, Kenneth Thomas, 300 Kensington Ave. 06051
1957 Johnson, Samuel Ault, 300 Kensington Ave. 06051
1966 Johnson, Theodore Herbert, 300 Kensington Ave. 06051
1976 Kahn, Charles Sigmond, Grove Hill Clinic 06050
1951 Kaplan, Henry Morris, 73 Cedar 06052
1960 Kawecki, Witold, 165 West Main 06051
1975 Keller, David Jay, 300 Kensington Ave. 06050
1972 Khan, Khurshid, 73 Cedar 06052
1970 Koch, Lawrence W., 40 Hart 06052
1972 Koops, Herbert J., 30 Bank 06051
1977 Kron, Steven S., New Britain Gen. Hospital 06050
1942 Lacava, John James, 73 Cedar 06052
1973 Lakin, Paul C., New Britain General Hospital 06050
1946 Larkin, John Charles, New Britain Gen. Hospital 06050
1946 Levine, Howard, New Britain Gen. Hospital 06050
1948 Livingston, William T., Grove Hill Clinic 06050
1968 Lund, David Allan, New Britain Gen. Hospital 06050
1955 Madden, Thomas James, 100 Grand 06052
1957 Mandell, Julian, 40 Hart 06052
1952 Marsh, Alexander, Central Conn. St. Coll. 06051
1948 Martin, Edward, Grove Hill Clinic 06050
1977 Massi, James Leonard, 40 Hart 06052
1946 Mlynarski, Joseph Andrew, 73 Cedar 06052
1975 Moody, Peter Campbell, New Britain Gen. Hospital 06050
1969 Moss, Robert, 73 Cedar 06050
1970 Nelson, Rodger Keith, 300 Kensington Ave. 06051
1940 Nevulis, Anthony V., 32 Grove Hill 06052
1974 Noniewicz, Stanley John, 40 Edbert Dr. 06052
1968 Nourizadeh, Ali-Reza, 73 Cedar 06052
1956 Ohanesian, Jacob Harry, 40 Hart 06052
1938 Orbach, Egmont Julius, 81 West Main 06051
1973 O'Reilly, Hugh Edward, 73 Cedar 06052
1968 Owens, Guy, 40 Hart 06052
1938 Parlato, Harry Anthony, 55 West Main 06051
1944 Peck, Bernard Carl, 32 Park Pl. 06052
1976 Philips, Ellen S., New Britain Gen. Hospital 06050
1963 Pito, Vincent J., New Britain Gen. Hospital 06050
1939 Pola, William Edward, 41 Lexington 06052
1957 Rackcliffe, Robert Lockwood, 670 Arch 06051
1936 Resnik, Edward, 272 Main 06051
1962 Ringrose, Vincent Patrick, Jr., 73 Cedar 06052
1975 Roberts, Richard William, 300 Kensington Ave. 06051
1964 Root, Howard Frank, Jr., New Britain Gen. Hospital 06050
1970 Samson, Donald Walter, 300 Kensington Ave. 06051

1930 Schechtman, Charles Theodore, 73 Cedar 06052
1954 Scheer, Edward Harold, 40 Hart 06052
1977 Schemm, Christopher Merrifield, 40 Hart 06052
1973 Scholand, Joseph Francis, 300 Kensington Ave. 06051
1931 Schupack, Samuel David, 38 Mason Dr. 06052
1938 Scully, Roger Tehan, 469 Lincoln 06052
1964 Sharon, Henry Joseph, 40 Hart 06052
1962 Sirkin, Robert Benjamin, 300 Kensington Ave. 06051
1975 Sittambalam, Earle J., 300 Kensington Ave. 06050
1955 Slater, Gregory S., 40 Hart 06052
1930 Slysz, Ladislaus Bernard, 247 West Main 06051
1970 Solano, Humberto, 300 Main 06051
1936 Squillacote, Vincent Joseph, 30 Lyle Rd. 06053
1974 Steckler, Jeffrey Brandeis, 233 Main 06051
1961 Stewart, William Errol Louis, 327 West Main 06052
1975 Stier, Steven, 100 Grand 06050
1973 Swartz, George J., 300 Kensington Ave. 06051
1956 Taylor, Daniel Morse, 300 Kensington Ave. 06051
1962 Thomas, Richard John, 40 Hart 06052
1976 Toor, Nasim F., 29 Park Pl. 06052
1941 Trapp, Francis W., 55 West Main 06051
1975 Ulreich, Sidney, New Britain Gen. Hosp. 06050
1967 Visnauskas, John William, 83 Vine 06052
1962 Waskowitz, William Jay, 40 Hart 06052
1965 Waugh, Robert Edmund, New Britain Gen. Hosp. 06050
1957 Wehrli, Adolph, 300 Kensington Ave. 06051
1973 Welna, Joseph A., 73 Cedar 06052
1948 Wesoly, Andrew Stanley, 27 Grove Hill 06052
1932 White, John Cowles, 300 Kensington Ave. 06051
1964 Wilson, James Miller, 300 Kensington Ave. 06051
1954 Winship, Granville Montgomery, Grove Hill Clinic 06050
1948 Wolfson, Samuel, 15 Coolidge 06052
1950 Wright, Ralph C., 300 Kensington Ave. 06051
1948 Yannello, Mario Humbert, 520 Shuttle Meadow Ave. 06052
1966 Zaccheo, Thomas Joseph, 300 Kensington Ave. 06051
1965 Zembko, Andrew Francis, 73 Cedar 06052

NEWINGTON 06111

1952 Callahan, James Lawrence, 24 Walsh Ave.
1975 Cerciello, Robert Louis, 181 East Cedar
1962 Cocilovo, Vincenzo, Cedarcrest Hospital
1950 Cohen, Benjamin, Newington's Children's Hospital
1938 Curtis, Burr H., 181 East Cedar
1974 Drennan James Cyril, 181 E. Cedar
1975 Fazzari, Patrick Joseph, 181 E. Cedar
1935 Fenney, Philip William, Veterans Administration Hospital
1949 Flynn, Frederick, Newington Children's Hospital
1946 Friedberg, Isadore Hirsh, 93 Market Sq.
1957 Gold, Howard Carl, 24 Walsh Ave.
1976 Klauber, George Thomas, 181 East Cedar
1975 O'Neil Vincent Danforth, 72 Southwood Rd.
1971 Ozonoff, Maer B., Newington Children's Hospital
1952 Pierce, John Archer, 181 East Cedar
1977 Russman, Barry Sheldon, Newington Children's Hosp.
1972 Scheig, Robert Lee, Veterans Administration Hosp.
1957 Wolfson, Herman, 142 Market Sq.

PLAINVILLE 06062

1975 Collins, Conrad Douglas, 100 East Main
1943 Iannotti, John Pasquale, 78 Whiting
1976 Ill, Katherine Cooke, 29 Park
1964 Saltzman, Marvin, 29 Park
1962 Yannios, James Nicholas, 73 East Main
1956 Zebrowski, Edward Julian, 120 West Main

PLANTSVILLE 06479

1937 Connor, George Michael, 964 South Main

ROCKY HILL 06067

1973 Agarwal, Chandra Kumar, Veterans Hospital
1954 Benkovich, Geza O., C419 Century Hills, 300 Cold Spring Rd.
1973 Ranganathan, Vasudeva, Veterans Hospital
1946 Walker, Donald Albert, 2051 Silas Deane Hwy.

SIMSBURY 06070

1977 Bason, Richard Henry, 720 Hopmeadow
1974 Buonomano, Ronald John, 930 Hopmeadow
1977 Cannon, John L., 720 Hopmeadow
1965 Hampton, Walter Richard, 930 Hopmeadow
1974 Himmelsbach, Richard Karl, 132 Firetown Rd.
1973 Imran, Ali Hashmi, 11 Banks Rd.
1973 Johnston, Janice J., 720 Hopmeadow
1976 Josephson, Ronald Paul, 374 Hopmeadow
1966 Keating, Stanley John, 34 Beldenwood Rd.
1965 Lewis, Garner Lennon, 720 Hopmeadow
1925 Murphy, Owen Lee, Canal
1964 Scudder, Walter Tracy, 720 Hopmeadow
1968 Sherman, Stephen Huntington, 13 Hopmeadow
1941 Shull, John Coulter, 2 Redstone Dr.
1976 Spada, Daniel Louis, Sr., 720 Hopmeadow

SOUTHINGTON 06489

1958 Alfonsi, Ambrose A., 70 Berlin Ave.
1955 Arcano, Joseph Timothy, 201 Main
1973 Blumer, Arthur T., 98 Main
1977 Brown, Garry Massey, 25 Berlin Ave.
1964 Browne, Harry Herbert, 25 Berlin Ave.
1949 D'Angelo, Anthony James, 94 Center
1949 D'Angelo, Eugene Joseph, 94 Center
1976 Dhumale, Suresh Hanmantrao, Bradley Memorial Hosp.
1976 Diana, Perin William, Jr., 17 Meriden Ave.
1935 Dudac, Thomas William, 98 Main
1933 Gura, George Michael, 76 Main
1973 Heap, Lewis Derek, Bradley Memorial Hospital
1976 Jamharian, Jan, Bradley Memorial Hospital
1975 Kaplan, Joseph Ross, Bradley Memorial Hospital
1976 Maderazo, Norma V. Baer, Bradley Memorial Hospital
1974 Mertz, James Joseph, Bradley Memorial Hospital
1973 Somogyi, Balazs Bela, 98 Main
1947 Stetson, Harold Prescott, 101 North Main

SOUTH WINDSOR 06074

1968 Gutkowski, Thaddeus John, 1700 Ellington Rd., P.O. Drawer B
1933 Houle, Raymond Theodore, 564 Main
1958 McGann, Desmond Martin, 658 Ellington Rd., P.O. Box 584

SUFFIELD 06078

1938 Coates, S. Paul, 370 North Main
1959 Zaczynski, Edward Joseph, 150 Hill

THOMPSONVILLE 06082

1937 Bloom, David Irving, 128 Pearl
1957 Czaja, Ronald Joseph, Hazard Ave.
1937 Dignam, Bernard Stephen, 133 Pearl
1966 Gfeller, Robert John, Enfield Professional Center
1938 Gourlie, Howard Wallace, 5 Riverview
1950 Johnson, Carl Wentworth, 11 North Main
1975 McGuane, Richard M., 82 South Rd.
1948 Robbins, Jacques, 5 North Main
1960 Schear, William Augustine, Hazard Ave.

UNIONVILLE 06085

1955 Austin, G. Lawrence, Jr. 23 Sycamore La.
1972 Woolfson, Arthur Ervin, 36 Main

WEST HARTFORD

1944 Allen, Mary Mazner, 1007 Farmington Ave. 06107
1949 Allen, Roy, 15 North Main 06107
1955 Altenberg, Henry Edward, 2668 Albany Ave. 06117
1973 Amato, Joseph Alfred, 720 Farmington Ave. 06119
1966 Anderson, Albin Stephen, 17 Drury Lane 06117
1932 Arons, Milton Robert, 127 Mohegan Dr. 06117
1975 Balazs, Denes Vilmos, 1043 Farmington Ave. 06107
1947 Barbour, Charles Manson, Jr., Wyngate Lane 06107
1940 Barker, Norman John, 5 Forest Hills La. 06117
1973 Berkley, Richard Bruce, 8 Lowell Rd. 06119
1972 Blakeslee, Sister Mary Helene, 27 Park Rd. 06105
1947 Bowen, Francis Dorsey T., 45 Sedgwick Rd. 06107
1967 Brewer, Sybille von Lindeiner, 109 Pioneer Dr. 06117
1972 Brodey, James Franklin, 854 Farmington Ave. 06119
1929 Buck, Burdette Jay, 215 Tunxis Rd. 06107
1947 Campbell, Robert Harold, 28 Ranger La. 06117
1929 Carroll, James Edward, 250 Griswold Dr. 06119
1933 Cenci, Vincent Peter, 854 Farmington Ave. 06119
1922 Clason, Freeman Pell, 40 West Hill Dr. 06119
1976 Cohen, Isaac, 29 North Main 06107
1960 Conroy, John Thomas, 46 Sunrise Hill Dr. 06107
1953 Conway, Mark, 125 LaSalle Rd. 06107
1976 Costantini, Louis, 801 Farmington Ave. 06107
1967 Cullen, Mary Teresa, 27 Fernwood Rd. 06119
1928 Cushman, Laurence Arnold, 19 Brunswick Ave. 06107
1940 D'Ambruoso, Dominic Charles, 30 Glen Hollow 06117
1962 David, Nasser David, 290 Park Rd. 06119
1914 Deming, Clinton Demas, 173 Steele Rd. 06119
1938 Donovan, William Francis, 798 Farmington Ave. 06119
1977 Donshik, Peter, C., 41 N. Main 06107
1937 Downer, Muriel Case, 17 Stratford Rd. 06117
1942 Duksa, Walter Joseph, 113 Bainbridge Rd. 06119
1938 Durkee, Ralph Everett, Jr., 85 Brookside Dr. 06107
1953 Earle, Lyon Hooper, Jr., 16 Sunset Ter. 06107
1960 Ehrlich, Eugene L., 45 South Main 06107
1927 Elliot, K. Gregory, 27 Brookline Dr. 06107
1952 Emmel, Robert Cortland, 61 South Main 06107
1941 Feeney, Thomas Michael, 4 Sunset Ter. 06107
1958 Felber, John Hans, 61 South Main 06107
1932 Filson, Ralph Marshall, 1028 Farmington Ave. 06107
1943 Fleisch, Milton Carl, 80 South Main 06107
1965 Fons, Anthony Ludwig, III, 345 North Main 06117
1968 Foster, Kendall Wilson, Jr., 41 Westminster Dr. 06107
1975 Fote, John Joseph, 820 Farmington Ave. 06119
1925 Fox, James Charles, Jr., 26 Westmoreland Dr. 06117
1952 Frank, Ludwig Mathias, 801 Farmington Ave. 06119
1957 Friel, Patrick Brendan, 801 Farmington Ave. 06119
1972 Gabrielle, Fred Michael, 820 Farmington Ave. 06119
1972 Gerber, William Hermann, 61 South Main 06107
1953 Gerent, Walter Paul, 115 Meadow Lane 06107
1975 Gionfriddo, Joseph Robert, 845 Mountain Rd. 06117
1960 Goldenberg, Arnold, 1260 New Britain Ave. 06110
1950 Gordon, Yale, 10 Princeton 06110
1958 Graffagnino, Paul N., 66 Uplands Dr. 06107
1939 Hall, Wendell Charles, 84 Brace Rd. 06107
1953 Hamilton, George Livingstone, Jr., 43 Sulgrave Rd. 06107
1931 Hennessy, James Joseph, 14 Forest Hills Dr. 06117
1946 Hepburn, Robert Houghton, 91 Pioneer Dr. 06117
1958 Hill, John M., 61 South Main 06107
1930 Holtz, Raymond Sidney, 16 Mt. Farms Rd. 06117
1965 Hosking, Wayne Frederick, 31 Rillbank Ter. 06107
1954 Houlihan, John Joseph, 125 LaSalle Rd. 06107
1963 Howe, George O., 696 Mountain Rd. 06117
1941 January, Derick Algernon, 94 Walbridge Rd. 06119
1942 January, Mildred Hartshorn, 94 Walbridge Rd. 06119
1935 Kaschmann, Joseph, 1118 Trout Brook Dr. 06119
1966 Kenny, William Joseph, 108 Steele Rd. 06119
1946 Kirsch, Neville, 61 South Main 06107
1969 Kurland, Morton David, 125 LaSalle Rd. 06107
1953 Leeds, William Gerard, 818 Farmington Ave. 06119
1942 Lenehan, J. Richard, 10 Dale 06107
1954 Le Royer, C. Phillip, 60 Beverly Rd. 06119
1964 Livingston, Robert, 1329 Boulevard 06119
1956 MacKinnon, Ian, 61 South Main 06107
1955 Maloney, Richard Harrington, 801 Farmington Ave. 06119
1949 Mann, Norman Morton, 65 LaSalle Rd. 06107
1953 Marsh, Raymond Randolph, 10 Arapahoe Rd. 06107
1959 Marshall, Lois Foster, 53 Westmont 06117
1935 Martin, John Garthwaite, 1064 Farmington Ave. 06107
1976 McCarthy, Frank Walden, Jr., 81 South Main 06107
1974 Menzer, Alexander, 779 Farmington Ave. 06119
1961 Milyko, Alexander Busch, 61 South Main 06107
1969 Morhardt, Charles Edwin, 45 South Main 06107
1969 Moskowitz, Harold, 14 Arlan Way 06117
1935 Murphy, Thomas Francis, 850 Farmington Ave. 06119
1973 Nathanson, Robert Bennett, 61 So. Main 06107
1928 O'Connell, Maurice Francis, 17 Westwood Rd. 06117
1973 O'Connell, Paul Benedict, 20 Glen Hollow 06117
1975 Perlman, Adele Maiman, 19 Timrod Rd. 06107
1934 Preston, Thomas R., 119 Bainbridge Rd. 06119
1923 Rankin, Bertrand Fred, c/o P. Rankin, 35 Gifford Rd. 06119
1951 Rankin, Clair, 1329 Boulevard 06119
1963 Rentz, Robert Edward, 1102 Farmington Ave. 06107
1930 Reynolds, Robert Gardner, 108 Hyde Rd. 06117
1977 Riege, David H., 81 South Main 06107
1976 Rixon, John D., 45 South Main 06107
1960 Rogers, Henry Crampton, 81 South Main 06107
1924 Root, Maurice Timothy, 51 North Main 06107
1935 Root, Sophie Andrews, 51 North Main 06107
1972 Rosenkranz, Barry Martin, 639 Prospect Ave. 06105
1956 Rothstein, Isadore, 90 Haynes Rd. 06117
1975 Rudnick, Robert David, 126D New Britain Ave. 06110
1921 Russell, G. Gardiner, 118 Steele Rd. 06119
1977 Sarter, Horace, 61 South Main 06107
1947 Schatten, Siegfried Sylvester, 1157 New Britain Ave. 06110
1975 Schipke, Raymond E., 785 Farmington Ave. 06119
1949 Schloss, Walter Amson, 31 Brookside Rd. 06107
1971 Schuster, Harvey Stuart, 41 North Main 06107
1966 Scully, Harold Francis, 29 Winterset Lane 06117
1975 Sereny, Peter, 1043 Farmington Ave. 06107
1975 Shea, William Patrick, III, 8 Lowell Rd. 06119
1964 Shelton, Philip Arthur, 41 North Main 06107
1964 Smith, Jay Donald, 10 Princeton 06110
1952 Smith, Lillian A., 44 Hartwell Rd. 06117
1939 Smith, Wilson Fitch, 25 Bainbridge Rd. 06119
1937 Spekter, Louis, 87 Mohawk Dr. 06117
1927 Standish, E. Myles, 11 Greenridge Lane 06107
1935 Standish, Hilda Crosby, Greenridge Lane, Sunset Farm 06107
1976 Swartz, Alan Nils, 1124 New Britain Ave. 06110
1962 Tadeo-Goldman, Josephine A., 38 Visgrove Lane 06117
1971 Taylor, William R., 81 South Main 06107
1939 Tennant, Robert, 30 Ten Acre Lane 06107
1961 Van Der Werff, Jacob Anne, 801 Farmington Ave. 06119
1923 Van Kleeck, Euen, 53 Concord 06119
1940 Walker, Robert, 10 Flagstad Rd. 06107
1973 Wasserman, Herbert E., 1005B Farmington Ave. 06107
1936 Weissenborn, Walter, 16 Vera 06119
1957 Welch, Edmund Thomas, Jr., 5 Manor Lane 06107
1920 Weld, Stanley B., 15 Gloucester Lane 06107
1973 Wells, Jean, 1005 Farmington Ave. Plaza 06107
1946 White, Edward Philip, 41 Riggs Ave. 06107
1941 Wineck, Morris Samuel, 11 Eastwood Rd. 06117
1934 Winters, John Thomas, 10 Dale 06107
1922 Wright, William Witter, 200 Fern 06119
1948 Zeldis, Norman, 21 Tanglewood Rd. 06117

WEST SIMSBURY 06092

1974 Dimlich, H. Karl, 41 Madison La.
1951 Hockmuth, Lloyd Norton, 204 W. Ledge Rd.

WETHERSFIELD 06109

1956 Agee, Fred Benson, Jr., 51 Westway
1974 Braren, Carl Henry, 463 Wolcott Hill Rd.
1968 Callan, John P., 425 Coppermill Rd.
1938 Carvey, Edward Vincent, 1 Garden
1948 Cavalieri, Rinaldo Joseph, 454 Highland
1937 Fagan, Francis Xavier, 147 Wells Farm Dr.
1960 Foote, Franklin M., 4 Round Hill Rd.
1936 Gallivan, John Norman, 951 Ridge Rd.
1976 Gazi, Golam Rosul, 415 Silas Deane Highway
1954 Giosa, Nicholas, 463 Brimfield Rd.
1952 Golden, Archie James, 91 Hillcrest Ave.
1946 Hellijas, Carl Sylvester, 4 River Rd.
1953 Johnston, J. Howard, 522 Wolcott Hill Rd.
1934 Keefe, Raymond Starkey, 304 Church
1958 Kessel, Leizor, 183 Spring
1949 Murphy, Robert Daniel, 5 Cottwell Dr.
1967 O'Brien, James Edward, 31 Surrey Drive
1961 Pace, Silvio Fernando, 63 Wells Rd.
1960 Pierce, John Arthur, 11 Golf Rd.
1976 Pope, Frederick Joseph, 239 Silas Deane Highway
1964 Powell, Nancy Rolick, 473 Wolcott Hill Rd.
1960 Ryan, William Donovan, 229 Maple
1923 St. John, Leopold Albert, 415 Silas Deane Highway
1950 St. John, Nicholas E., 375 Ridge Rd.
1932 Storms, William Frederick, 25 Old Smithy La.
1962 Turner, Wallace Wilder, 102 Clovercrest Rd.
1937 Twaddle, Paul Holmes, 430 Church

WINDSOR 06095

1958 Britting, John Anthony, 697 Poquonock Ave.
1975 Chowdhury, Muzibul Gani, 150 Poquonock Ave.
1949 Donohue, Stephen Michael, 525 Windsor Ave.
1967 Ford, James Raymond, 697 Poquonock Ave.
1959 Granville, Norma Belle, 126 Clover
1956 Hamblin, Wolcott Chaffee, 342 Park Ave.
1957 Keefe, Raymond Bernard, 697 Poquonock Ave.
1930 MacCready, William Harold, 3 Orchard Lane
1955 Mack, Daniel Elliott, 74 Mack
1957 Murphy, Edward Francis, 1000 Prospect Hill Rd.
1975 Paslawski, Walter, 93 Long Hill Rd.
1975 Pattillo, James Gilchrist, 74 Mack
1947 Poirier, Theophane M., 26 Maple
1958 Pullen, Richard Donald, 74 Mack
1950 Silliman, Warren B., 26 Prospect
1964 Tummillo, Mary Anne, 924 Windsor Ave.
1975 Velie, William Milner, 74 Mack

WINDSOR LOCKS 06096

1930 Byrne, David W., 412 Elm
1952 Eilbergas, Michael, 403 Halfway House Rd.
1948 Kennedy, John Joseph, Jr., 50 Church
1964 Wehr, Robert, 326 South Center

OUT OF COUNTY

1952 Abbot, Frank Kimball, 341 Laurel Grove Rd., Middletown 06457
1957 Bachman, John Presly, Apt. 403R, Chateau LaJolla, LaJolla, California 92037
1955 Barry, Robert Torney, Craigville Beach Rd., West Hyannisport, Mass. 02672
1946 Baskin, Abraham Hyman, U-11, Univ. of Conn., Storrs 06268
1933 Bausch, Carl Philip, 76 Cliff Rd., Nantucket, Mass. 02554
1932 Benoit, Raoul Joseph, 209 Rosary Rd., Clearwater, Florida 33516
1951 Brandriss, Joseph, 4720 Pinetree Dr., Miami Beach, Florida 33140
1939 Brewer, Francis, 711 Avila Pl., El Cerrito, California 94530
1954 Bucknam, Frank Gilbert, Romerstrasse 136D, 6900 Heidelberg, West Germany
1973 Bundy, Edward Stillman, Meriden Hospital, Meriden 06450
1958 Burke, Gerald Francis, Middlesex Memorial Hospital, Middletown 06457
1965 Bush, Hubert Sutton, Jr., 57 Union, Rockville 06066
1951 Canzonetti, Andrew Joseph, Scovill Mfg. Co., Waterbury 06706
1947 Carey, Thomas B., 221 N.E. 15th, Delray Beach, Florida 33444
1964 Carr, Michael Francis, 25 Chestnut Ct., Cromwell 06410
1961 Casey, Edward James, 1641 Colden Ave., Bronx, New York 10462
1965 Colliton, Robert John, 34 Oakmoor Dr., Vernon 06066
1933 Corcoran, Michael A., Ridgeview Rest Home, Cromwell 06416
1943 Crispin, Maximilian A., 1411 N. Flagler Dr., West Palm Beach, Florida 33401
1946 Desmond, Charles T., Parkside Apts., 10649 Montrose Ave., Bethesda, Maryland 20614
1969 Dunne, Michael Joseph, 9013 Beatty Dr., Alexandria, Virginia 22308
1947 Ebers, Theodore Martin, P.O. Box 821, Sedona, Arizona 86336
1942 Edson, Reginald Campbell, 963 Catalina Rd., St. Augustine Shores, Florida 32084
1943 Ellis, Lyle Gaffney, Sunset Ave., Rocky Mount, North Carolina 27801
1976 Ellsworth, Michael Hamilton, 255 Pomfret 06260
1933 Farland, Victor Louis, 3000 N. E. 56th Ct., Fort Lauderdale, Florida 33308
1974 Feller, Clifford Warren, 149 East Ave., Norwalk 06851
1975 Graham, John R., 111 Meadow Wood Rd., Branford 06405
1975 Greenberg, Robert David, Vernor Prof. Building, Rt. 30, Vernon 06066
1967 Gutierrez, Teofilo Gregorio, Jr., Meriden Hospital, Meriden 06450
1969 Hoffman, Harry B., Yale-NH Hospital, New Haven 06504
1934 Horning, Benjamin Graham, Hostal Alameda, Calle Casas de Compos, 3 Malaga, Spain
1935 Hough, Perry Tyler, Parrsboro, Nova Scotia, Canada
1948 Jennings, Walter Forfar, 122 E. Shore Ave., Groton Long Point 06340
1930 Kalett, Joseph, 2055 Gulf of Mexico Dr., Apt. 209, Sarasota, Florida 33577
1937 Katz, Dewey, 3379-P Punta Alta, Laguna Hills, California 92653
1928 Laplume, Albert Antonio, 2806 N.W. 52nd Ct., Tamarac, Ft. Lauderdale, Florida 33309
1971 Lawson, Ian Richard, Danbury Hospital, Danbury 06810
1950 Lear, Harold A., 1170 5th Ave., New York, New York 10029
1936 Lewis, Samuel Donald, 1801 S. Flagler Dr., West Palm Beach, Florida 33401
1938 LoVetere, Angelo Arthur, 450 Old San Francisco Rd., Sunnyvale, California 94086
1975 Lyall, Santokh Singh, 20 Laurelcrest Rd., Madison 06443
1965 Mara, Neil F., 117 Irene Dr., Vernon 06086
1969 Matthews, Lester G., 303 West Main, Freehold, New Jersey 07728
1937 McCue, Martin P., 473 Boston Post Rd., Waterford 06385
1934 McDermott, John Francis, 1434 Punahou, Arcadia Apt., Honolulu, Hawaii 96822

1934 Menousek, Joseph Albert, 270 Celestial Way, Juno Beach, Florida 33408
1973 Moon, Won Koul, 106 Litchfield, Torrington 06790
1954 Motyka, Stanley J., 10092 Merrimac Dr., Huntington Beach, California 92640
1960 O'Connor, Luke Edward, 57 Union, Rockville 06066
1935 Papa, John Smith, 1950 N.E. 59th Pl., Fort Lauderdale, Florida
1930 Parshley, Philip Ford, Box 509, Pinehurst, North Carolina 28374
1952 Pepper, Dickerson Sergeant, 1414 Stony Circle, Gladwyne, Pennsylvania 19035
1969 Pet, Donald, 633 Washington, Middletown 06457
1930 Pullen, Richard Woollard, 675 Einsiedlerhof-Kaiserslautern, Kaiserstrasse 156 West Germany
1923 Robinson, Wilfred John, P.O. Box 7052, Christiansted, St. Croix 00820
1975 Ryan, Michael J. Jr., 1210 W. 58th, Kansas City, Missouri 64113
1953 Schwartz, Harold, 5025 N. Paulina, Chiago, Illinois 60640
1953 Stapor, Joseph John, 536 Gospel Lane, Orange 06477
1930 Steincrohn, Peter Joseph, 1430 Ancona Ave., Coral Gables, Florida 33146
1936 Stewart, Lester Quentin, 33 Erickson Way, South Yarmouth, Mass. 02664
1932 Talbot, Henry Pierce, 259 Shamrock Blvd., Venice, Florida 33595
1941 Tutles, Alexander James, 2780 Atlantic, #3, Melbourne Beach, Florida 32951
1937 Unsworth, Arthur Charles, P.O. Box 606, Center Harbor, New Hampshire 03226
1957 Warren, David L., Choctaw Health Center, Rt. 7, Box R-50, Philadelphia, Mississippi 39350
1931 Weisenfeld, Nathan, 1445 Tamiami Trail, Sarasota, Florida 33580
1976 White, Barry Ellis, 687 Main, Branford 06405
1967 Zlotsky, Norman A., 23 Elm, Rockville 06066
1950 Zyla, Edward J., 23 Maple, Rockville 06066

Litchfield County Association

President: Peter Gott, Main, Lakeville 06039
President-Elect: Donald H. Peters, Elizabeth, Kent 06757
Secretary-Treasurer: Frank Lovallo, Sharon Med. Arts Ctr., Hospital Hill, Sharon 06069
Councilor: Robert W. Harkins, P.O. Box 449, Woodbury 06798
Associate Councilor: Todd E. Anderson, Charlotte Humgerford Hospital, Torrington 06790
Annual Meeting, Second Tuesday in April
Semi-Annual Meeting, Second Tuesday in October

COLEBROOK 06021

1973 Fletcher, Robert G., Box 102
1957 Luchs, David, Schoolhouse Rd.
1967 Ragland, Stuart, Jr., Smith Hill Rd.

FALLS VILLAGE 06031

1946 Bornemann, Carl, Beebe Hill Rd.

HARWINTON 06790

1938 Kott, Joseph Henry, Cobble Rd.

KENT 06757

1966 Goss, John D. Jr., Macedonia Rd.
1946 Greiner, George Frederick, Kent School
1976 Marlow, Dorothy Jeannette, Box 339
1963 Peters, Donald Henry, Elizabeth

LAKEVILLE 06039

1945 Brewer, Alfred Edwin, Main
1966 Gott, Peter, Main
1968 Westsmith, Richard Alan, Main

LITCHFIELD 06759

1946 Dautrich, Albert William, West
1966 MacMaster, Duncan Raymond, Prospect
1939 Warner, C. Norton, North

NEW HARTFORD 06057

1942 Markwald, Heinz Wolfgang, Main
1977 Schneiderman, William L., 1832 Howse, Main
1972 Sherman, Roy B., River Run, Apt. 12A

NEW MILFORD 06776

1949 Baird, Robert Desmond, 30 Park Lane East
1977 Buhain, Jose Dungca, 15 Old Park Lane
1973 Clark, Morris L., 17 Poplar
1967 Danzig, Samuel D., New Milford Medical Building
1963 Estrada, Julian Albert, New Milford Medical Building
1952 Ferris, Jeffrey, 62 Bank
1956 Happel, Elizabeth, 62 Bank
1957 Haxo, John Victor, 15 Old Park Lane Rd.
1938 Ignace, Stephen J., 65 Bridge
1976 Kamm, Harold John, 49 East
1973 Kavirajan, Vadakkekara, 15 Old Park Lane
1964 Lahvis, W. Frederick, P.O. Box 148
1975 Mabasa, Ramon Albar, 15 Old Park Lane Rd.
1949 Morrow, Howard S., 30 Elm
1971 Nagaraja, Urabagilu, 62 Bank
1975 Orlandi, Robert Joseph, 15 Old Park Lane
1947 Street, John M., P.O. Box 777

NEW PRESTON 06777

1971 Abreu, Francisco B., R.F.D. #1
1973 Peck, Morgan Scott, Bliss Rd., R.F.D. 1

NORFOLK 06058

1937 Barstow, Richard Iddings, The Village Green
1975 Prouty, Robert L., Litchfield Rd.

NORTH CANAAN

CANAAN 06018

1935 Elliott, John Richard, Main

ROXBURY 06783

1964 McDonald, Robert L., Roxbury Falls Rd.

SALISBURY 06068

1943 Mackay, William D.
1955 Smith, Frank Edward, Jr., Main

SHARON 06069

1975 Brown, Malcolm Michael, Sharon Clinic
1973 Charde, John Patrick, Sharon Clinic
1968 Collins, Richard Neil, Sharon Clinic
1975 Colman, Neil D., Hospital Hill
1976 Cross, Valmore Francis, Sharon Hospital
1976 Donnell, Walter, Hospital Hill
1972 Finkelstein, Jack, P.O.Box 566
1949 Fisher, Robert Lownds, Sharon Clinic
1962 Gallup, John William, Sharon Clinic
1947 Gevalt, Frederick C. Jr., Sharon Clinic
1947 Grendon, David Arthur, Sharon Hospital
1942 Gudernatch, Gaert Steuerwald, Main
1975 Hajek, Joseph, Sharon Clinic
1949 Haydock, George Guest, Sharon Clinic

1975 Henisz, Anna Krystyna, Sharon Hospital
1959 Jensen, Philip B., Sharon Med. Arts Ctr., Hospital Hill
1960 Laning, George Michie, Morey Rd.
1973 Longstreth, George, Sharon Clinic
1951 Lovallo, Frank, Sharon Med. Arts Ctr., Hospital Hill
1969 Mirabile, Charles Samuel, Jr., Sharon Cinic
1953 Moore, Roger W., Sharon Clinic
1966 Reyelt, Walter Peter, Jr., Sharon Clinic
1975 Ryan, Robert H., Sharon Clinic
1974 Tesoro, Michael Richard, Main
1971 Tiedemann, Richard N., Main
1953 Waugh, David Darwin, New
1976 Weeks, Carnes, Jr., Sharon Hospital
1975 Wright, Ann B., White Hollow Rd.

SOUTH KENT 06785

1974 Mellisy, Andrew, Rt. 341 & South Rd.

TERRYVILLE 06786

1976 Beup, Leonardo Perez, 87 East Main
1951 Coral, Mark, 9 Maple
1958 Wasley, David L., 7 Elm

THOMASTON 06787

1946 Conklin, Clifford T. Jr., 16 Grand
1947 Samson, Daniel P., 147 Elm

TORRINGTON 06790

1970 Abbott, Jay Lewis, 106 Litchfield
1946 Adams, Arthur John, Charlotte Hungerford Hospital
1972 Aitken, Gloria Stone, 540 Litchfield
1972 Anderson, Todd Edmund, Charlotte Hungerford Hospital
1976 Barrett, John Joseph, Charlotte Hungerford Hospital
1976 Blinkoff, Jack J., 49 Felicity La.
1966 Briggs, Robert Stewart, 30 Peck Rd.
1952 Brown, Freeman Fletcher, Jr., 540 Litchfield
1946 Buckley, John Littlefield, 148 Migeon Ave.
1950 Canniff, James Charles, 51 Main
1946 Chait, Sidney A., Village Rd., Apt. 12D
1970 Curi Joseph F. J., Litchfield Hills Medical Center
1966 Danaher, Thomas H., 379 Prospect
1946 Fabro, J. Alfred, 94 Church
1961 Farrell, Henry Francis, Peck Rd.
1963 Finn, Alfred Joseph, Jr., 379 Prospect
1972 Finnie, Jerrold Nelson, 1185 New Litchfield
1970 Galloway, John Alexander, 106 Litchfield
1931 Giobbe, Michael Edward, 355 Prospect
1969 Glenn, John Spellman, 24 Church
1936 Goldberg, Isadore Soloman, 24 Church
1906 Griswold, Maude Taylor, Wolcott Ter.
1966 Gulliver, Ashbel Green, 1185 New Litchfield
1966 Heinrich, Ward Dittmar, 24 Church
1949 Huvelle, Camille Henry, Peck Rd.
1954 Irwin, John Britton, 1185 New Litchfield
1947 Katzin, Benjamin, 30 Peck Rd.
1962 Kramer, Richard Thomas, 24 Mason
1973 MacDonald, Carlton A., Charlotte Hungerford Hospital
1975 Mactal, Josefino Alejandro, 540 Litchfield
1953 McKenna, James Francis, 379 Prospect
1952 Meunier, John Louis, 24 Church
1942 Mitchell, Gerald Vincent, 185 Albert
1938 Murcko, William John, 253 Main
1971 Nesbitt, Kenneth A., Charlotte Hungerford Hospital
1938 Orlowski, Andrew Williams, 64 Belleview Ave.
1966 Pimpinella, Ronald J., 30 Peck Rd.
1954 Polito, John Clarke, 24 Church
1975 Privitera, Joseph Henry, Charlotte Hungerford Hospital
1949 Robertson, Alexander Rocke, P.O.Box 1107
1975 Romanos, Daniel Raymond, 94 Church
1932 Samponaro, Nicholas, 241 Main
1974 Sansing, James G., 185 Albert
1973 Scalice, Robert Angelo, 30 Peck Rd.
1976 Seleman, Alden Walter, Charlotte Hungerford Hospital
1947 Smith, James Thomas, 148 Migeon Ave.
1966 Smith, Reginald Donald, Charlotte Hungerford Hospital
1962 Vanoni, Frank Robert, 379 Prospect
1953 Walker, Thomas H., 30 Peck Rd.
1956 White, Fowler F., 180 Marcia Dr.
1975 Wilton, Robert Edward, (D.O.) 1185 New Litchfield

WASHINGTON 06793

1968 Fearon, Henry Dana, Washington Green
1958 Hays, David R. Jr.
1976 Litman, Robert B.

WASHINGTON DEPOT 06793

1946 Simonds, John Rolf, Box 228

WATERTOWN 06795

1976 Bassford, William W., 57 DeForest
1946 Caney, Wilbur Hinds, 429 Main
1951 Goerner, Jessamine Roberta, 404 Main
1949 Martin, Katharine Hawley, Butternut Lane
1936 Meyers, Royal Abbott, 210 Guernseytown Rd.
1976 Tate, Curtis Eugene, 70 Heminway Park Rd.
1970 Weber, Donald John, 459 Main

WEST CORNWALL 06796

1947 Linder, James H., 280 Cornwall-Sharon Rd.

WINSTED 06098

1976 Berger, Ronald O., 71 Spencer
1969 Briggs, Harry Caldwell, 71 Spencer
1977 Capobianco, Lucian Francis, 16 Hinsdale Ave.
1936 Cornelio, Francis Joseph, 45 Elm
1965 Dutton, Richard Sanders, 71 Spencer
1977 Galland, Leopold D., 16 Hinsdale Ave.
1969 Gallo, Erly Paul, 10 Hinsdale Ave.
1937 Gallo, Francis, Medical Arts Building
1977 Hamlin, Nason P., 71 Spencer
1962 Husvet, Ferenc, 71 Spencer
1954 Izumi, Ernest Matson, R.F.D. No. 1
1964 Kaess, Kenneth Richard, Winsted Memorial Hopital
1936 Levy, Aaron, 26 Elm
1971 Munch, Richard Valentine, 71 Spencer
1968 Pierce, John M., 71 Spencer
1947 Reidy, Joseph Carey, 43 Walnut
1969 Smith, Norman Eugene, Jr., 71 Spencer
1955 Tury, Leslie Akos, R.F.D. #1, Bunnell
1974 Whelchel, Lynn W. Jr., 71 Spencer

WOODBURY 06798

1948 Cushman, George Lester, Judson Ave.
1967 Harkins, Robert William, P.O. Box 449
1976 Tuerk, Benjamin, Jr., Linden Rd.

OUT OF COUNTY

1950 Atwood, Albert Sterling, Lawrence & Memorial Hospitals, New London 06320
1972 Bernacki, Edward Joseph, United Tech. Corp., Hartford 06101
1938 Dobbs, William G. H., 13680 N.W. Roanoke Lane, Portland, Oregon 97229
1960 Dolan, Virginia Louise, 2866 Mayfield Rd., Cleveland Heights, Ohio 44118
1942 Downs, Elinor Fosdick, Stoneleigh, Alger Court, Bronxville, New York 10708
1931 Evarts, Josephine, Millerton, New York 12546

1948 Fowler, George A., 803 Camino Atalaya, Santa Fe, New Mexico 87501
1935 Kilgus, John Frank, Jr., Sunrise Dr., Avon 06001
1966 McCarthy, Joseph Clark, Box 5347, Evansville, Indiana 47715
1966 Mino, Manuel Eduardo, 119 Lantern Lane, Wethersfield 06109
1970 Montoni, Edward John, 5 Wintergreen La., West Simsbury 06092
1967 Niemann, Claus Peter, P.O. Box 74, Sherman 06784
1919 Reade, Edwin Godwin, 315 Knollwood Village, Southern Pines, North Carolina 28387
1963 Vidone, Romeo Albert, 880 Racebrook Rd., Orange 06477
1939 Wilcox, Lloyd M., 124 Main, Bristol 06010
1976 Wise, David L., 314 Henry, Chubbuck,Idaho 83201
1967 Zeffiro, Ronald Gordon, 40 Timrod Rd., West Hartford 06107

Middlesex County Association

President: Benjamin M. Shenker, 1251 South Main, Middletown 06457
Vice-President: Patrick R. Concannon, Wildwood Med. Ctr., Essex 06426
Secretary-Treasurer: Kenneth M. Robbins, 760 Saybrook Rd., Middletown 06457
Councilor: W. Raymond James, 64A North Main, Essex 06426
Associate Councilor: Herbert Magram, 45 Crescent, Middletown 06457
Annual Meeting, Second Thursday in April
Semi-Annual Meeting, Second Thursday in October

CHESTER 06412

1977 Berman, Arnold M., 16-A King's Highway
1954 Wheeler, Gordon Bartlett, Kings Highway, R.F.D. No. 1

CLINTON 06413

1974 Kerr, Robert John Noel, 37 Commerce
1937 Rindge, Norman Pember, 147 East Main

CROMWELL 06416

1963 Adams, Henry Alexander, 384 Main
1958 Cornett, Samuel James, 8 Woodlawn Dr.
1934 Couch, Frank Hallock, 32 Prospect Hill Rd.
1969 Crowther, Daniel F. S., 269 Main
1976 D'Amato, Raymond Lee, 269 Main
1940 Grant, Richard Francis, 482 Main
1972 Macionus, Raymond Francis, 269 Main
1928 Nelson, Walter Nathaniel, 360 Main
1967 Waldman, Arthur Leslie, 269 Main

DEEP RIVER 06417

1939 Lobb, Russell Albert, 1 Essex
1974 Snyder, Elise W., Cedar Swamp Rd.

DURHAM 06422

1976 Bird, Kenneth Irving, Jr., Wildwood Rd.
1974 Sinnamon, Rita C., Creamery Rd.
1964 Voelkening, Burkland Wolfgang, Carriage Dr.

EAST HAMPTON 06424

1934 Soreff, Louis, 9 West High
1970 Thomas, John M., RR4, Town Farm Rd.

ESSEX 06426

1942 Ames, William Gard, 64A North Main
1972 Baldwin, David Bruce, Middlesex Tpke.
1971 Bardenheier, Joseph Alexander, Wildwood Med. Building
1967 Buebendorf, Donald Philip, Middlesex Tpke.
1975 Dwyer, Robert Dennis, Wildwood Medical Bldg.
1971 Goetcheus, John Stewart, Middlesex Tpke.
1977 Goff, Christopher Wallick, Middlesex Tpke.
1948 James, Walter Raymond, 64A North Main
1973 Maron, Theodore William, Jr., Middlesex Tpke.
1974 Pierson, Paul Starrett, 64 North Main
1954 Stanford, John, 64A North Main
1974 Tucker, Edward Spori, 64A North Main
1941 Twachtman, Eric, Plains Rd.

HADDAM 06438

1976 Greenaway, Michael D., Oak Ridge

HIGGANUM 06441

1972 Kilga, Lawrence A., Lt. Shubael Rd.
1948 Korab, John Joseph, High
1973 Pringle, Eleanor W., Killingworth Rd.

KILLINGWORTH 06417

1951 Bauer, William Frederick, Jr., Fire Tower Rd.

MIDDLETOWN 06457

1973 Abad, Alex A., Connecticut Valley Hospital
1969 Adams, Richard, Shoreline Surgical Assoc., 195 South Main
1962 Arafeh, Mehadin Kamel, Connecticut Valley Hospital
1969 Arena, Anthony Joseph, 770 Saybrook Rd.
1952 Arnault, Donald George, 80 South Main
1960 Bellobuono, John R., 210 South Main
1976 Bernstein, Alan Elihu, 1251 South Main
1971 Bertuch, Albert William, 195 South Main
1976 Brown, Dewees Harold, 77 Crescent
1977 Brown, James, 80 South Main
1971 Buchalter, Daniel Joel, 80 South Main
1941 Buckley, Willard Emrich, 770 Saybrook Rd.
1977 Butt, Muhammed Tarig, 80 South Main
1975 Campbell-Jacobs, Richard M., 1251 South Main
1974 Catrini, Vincent Julian, 770 Saybrook Rd.
1969 Cerritelli, Dominick Henry, 45 Crescent
1963 Ceulemans, Cyril Peter, 770 Saybrook Rd.
1955 Chace, Charles Winslow, 760 Saybrook Rd.
1973 Clark, Samuel, Jr., 770 Saybrook Rd.
1942 Crampton, Clair Beebe, Wesleyan Univ.
1958 Daukas, Nicholas James, 124 Washington
1959 DeVille, Desmond Bancroft, 80 South Main
1972 Donadio, Joseph A., 80 South Main
1947 Epstein, Joseph I., 195 South Main
1972 Fiducia, Joseph Paul, 80 South Main
1969 Fischbein, Frederic Ian, 80 South Main
1975 Flanagan, Joseph Aloysious, 80 South Main
1962 Gallo, Sebastian John, Middlesex Memorial Hospital
1972 Ganguli, Prabhash Chandra, 28 Crescent

1968 Gerz, Hans O., 75 Acer Dr.
1975 Gersten, Steven P., 210 South Main
1971 Gordon, Eric, P.O. Box 467
1967 Gorin, Malcolm, 195 South Main
1974 Hall, William A., Wesleyan Univ.
1920 Harvey, Carl Clifford, 20 Silver
1948 Harvey, Sanford W., Ballfall Rd.
1948 Harwood, Clarence W., 80 South Main
1965 Havlicek, Joseph Anthony, 195 South Main
1968 Hickox, David Beattie, 80 South Main
1974 Hoffman, Daniel, 60 Crescent
1977 Jamil, Qazi Akhtar, 547 Main
1971 Johnson, David Porter, Middlesex Memorial Hospital
1974 Kalayjian, David Bernard, 1251 South Main

1965 Kaufmann, Herbert Alfred, 770 Saybrook Rd.
1956 Kelly, John Francis, 770 Saybrook Rd.
1975 Kelly, Margaret DePonte, 256 Old Mill Rd.
1951 Korn, Francis Edwin, 195 South Main
1928 LaBella, Louis Onorato, 760 Saybrook Rd.
1969 Lambe, Michael Joseph, 11 Orchard Hill La.
1964 Lambe, Thomas Peter, 70 Crescent
1973 Lee, John P., 80 South Main
1952 Levine, Herbert, 770 Saybrook Rd.
1957 Magram, Herbert, 45 Crescent
1975 Mahmud, Abdul Wazed, 547 Main
1957 Manzi, Joseph Alexander, 80 South Main
1970 McCarthy, Robert Emmett, 80 South Main
1954 McDowell, Arthur Vennall, 28 Crescent
1963 McKay, Donald, 770 Saybrook Rd.
1940 McLeod, Christie Ellen, 466 Maple Shade Rd.
1966 Miller, Donald Edwin, 80 South Main
1934 Minor, Lloyd Wesley, 329 Coleman Rd.
1976 Morrison, John W. Jr., 195 South Main
1969 Nadel, Martin S., Middlesex Memorial Hospital
1939 Palmieri, Mario Lorenzo, 200 Coleman Rd.
1958 Pella, Juan, 243 Main
1956 Pennington, Robert Breece, 80 South Main
1965 Perlin, Louis, 170 Oakcliff Rd.
1959 Prins, Sal A., 67 Old Mill Rd.
1974 Rabuffo, Jeffrey Vincent, 770 Saybrook Rd.
1943 Rafkind, Abraham Benjamin, 212 Hunting Hill Ave.
1972 Robbins, Kenneth Mark, 760 Saybrook Rd.
1965 Rosenbaum, Howard T., Middlesex Memorial Hospital
1933 Schwartz, Philip Edward, 195 South Main
1977 Shapter, Robert Kevin, 77 Crescent
1957 Sheehan, Felix Gerard, 589 Saybrook Rd.
1945 Shenker, Benjamin Morton, 1251 South Main
1940 Sherwood, Henry, 195 South Main
1970 Silberstein, Allen B., 28 Crescent
1977 Solter, Allan Warren, 134 Washington
1968 Sosa, Juan B., 109 Broad
1929 Speight, Harold Edmund, 70 Crescent
1969 Stoane, Leonard, Middlesex Memorial Hospital
1924 Sweet, Alfred Norton, 770 Saybrook Rd.
1957 Sweet, Richard Tallmadge, 770 Saybrook Rd.
1949 Thomson, Archibald Wilson, Jr., 80 South Main
1946 Thumim, Mark, 760 Saybrook Rd.
1947 Toll, Nina, Box 413 06458
1973 Torop, Paul, 109 Broad
1933 Tracy, F. Erwin, 202 Old Mill Rd.
1954 Turano, Andrew Frank, 80 South Main
1967 Twiss, Harry Younger, Ballfall Rd.
1942 Vinci, Vincent John, 770 Saybrook Rd.
1961 Welling, Searle Kistler, 80 South Main
1967 Yue, James Kar-Kee, 80 South Main
1971 Zavod, Robert, 1 Yellow Birch Rd.
1974 Zavod, William A., 259 Prout Hill Rd.
1974 Zelinka, Miloslav, Wesleyan Univ.

MOODUS 06469

1946 Berwick, Philip, Box 19
1963 Paardenkooper, John, Falls Rd.

OLD SAYBROOK 06475

1962 Brewer, Timothy Francis III, 5 Boulder Dr., Otter Cove
1971 Cook, Donald Edward, 840 Boston Post Rd.
1934 Greenberg, Aaron, 226 Main
1969 Gritzmacher, Richard Orlen, 840 Boston Post Rd.
1956 Irving, William David, 12 Old Boston Post Rd.
1976 Montano, Charles, 34 Pratt Rd.
1974 Rowett, Dale, Pleasant Hill Rd.
1946 Saunders, George Robert, P.O. Box 92
1971 Sheehan, Bernard F., 263 Main
1974 Thomas, Eric Joseph, 395 Main
1967 Wollack, Anne Carolina, P.O. Box A.W.

PORTLAND 06480

1968 Andrus, Wayne Burton, Stonegate Dr.
1954 Barton, Donn Coleman, 595 Main
1966 Coe, Margaret J., 2 Redberry Lane
1963 Dooley, John A., Grace Lane
1974 Eckhart, Kenneth L., 22 Michele Dr.
1970 Ghaussy, Aziz A., 28 Marlborough
1959 Gray, Philip, 9 Hall Hill Rd.
1947 Longo, Americo Domenico, 344 Main
1974 Niejadlik, Daniel Charles, 17 Michele Dr.
1977 Rosenfeld, George M., 595 Main
1941 Ryan, V. Gerard, 333 Main
1964 Spalding, Peter Edward, Penfield Hill Rd.

WESTBROOK 06498

1974 Cyrus, Roger Wesley, Boston Post Rd.

OUT OF COUNTY

1967 Burkle, Frederick Martin, Jr. Dartmouth Medical Ctr., Hanover, New Hampshire 03755
1970 Concannon, Patrick R., W.W. II Veterans Hospital, Meriden 06450
1947 Green, Robert H., 26 Lovers Lane, Madison 06443
1974 Landow, Stephen S., 2 Chapel Dr., Pine Orchard, Branford 06405
1970 Martinson, Edgar O., 47 Shorelands Dr., Madison 06443
1961 Pernetti, Anthony Miles, Churchwood 2B, Niantic 06357
1926 Russman, Charles, 450 Golden Isles Dr., Apt. 2A, Hallandale, Florida 33009
1947 Sherman, Benjamin, 156 Palmetto Ave., N. Indialantic, Florida 32903

New Haven County Association

President: Patrick N. Brown, 95 East Main, Meriden 06451
Vice-President: Mehdi S. Eslami, 1389 West Main, Waterbury 06708
Executive Director: Mr. Peter B. Aaronson, 270 Amity Rd., Woodbridge 06525
Councilor: John J. Mendillo, 628 George, New Haven 06511
Associate Councilors: Gioacchino Parrella, 2044 Bridgeport Ave., Milford 06460
Mehdi S. Eslami, 1389 West Main, Waterbury 06708
Business office: 270 Amity Rd., Woodbridge 06525
Annual Meeting, Fourth Thursday in March
Semi-Annual Meeting, Wednesday in October

ANSONIA 06401

1964 Cimmino, Gerald Nicholas, 121 Wakelee Ave.
1973 Flores, Jose C., 121 Wakelee Ave.
1946 Haddad, Fred Melad, 112 Pershing Dr.
1977 Hernandez, Juan Ramon, 121 Wakelee Ave.
1954 Hoffer, John Mathew, 121 Wakelee Ave.
1975 Iannotti, Salvatore, 20 Westfield Ave.
1963 Laubstein, Melvin Bernard, 20 Westfield Ave.
1961 Lin, Paul Tong Chang, 121 Wakelee Ave.
1957 Manjoney, Richard Charles, 20 Westfield Ave.
1973 Maric, Radoslav, 121 Wakelee Ave.
1942 Pepe, Anthony James, 3 Marshall Lane
1955 Petrie, Stewart Judson, 20 Westfield Ave.
1932 Renehan, John Michael, 1 Kingston
1964 Shapiro, Bernard Seymour, 121 Wakelee Ave.
1975 Silberberg, William Paul, 400 Main
1966 Smiley, Sheldon S., 121 Wakelee Ave.

BETHANY 06525

1976 Cohn, Frederick L., Rainbow Rd.
1960 Donnelly, John Emmitt, Clay Rd.
1953 Kleeman, James Allen, Bethmour Rd.

BRANFORD 06405

1934 Blanchard, Dana Lincoln, 687 Main
1974 Drakonakis, Andrew C., 650 Main
1945 Gencarelli, Alphonse Frank, 2 Peddler's Dr.
1955 Goldenring, Herbert, 62 Kirkham
1976 Levine, Robert Aaron, 960 Main
1962 Levy, Harold David, 140 Montowese
1929 Levy, Nathan, 140 Montowese
1943 Lindskog, Gustaf Elmer, 38 Griffing Pond Rd.
1956 Nickou, Nickolas, 687 Main
1966 Rosenbloom, Marshall Lewis, 62 Kirkham
1946 Rosenthal, Richard Louis, 687 Main
1962 Scherr, Edward Stanley, 960 Main
1971 Smith, Robert Pease, 93 Linden Ave.
1974 Stitelman, Michael, 211 Montowese
1924 Taylor, Robert Mitchell, 36 Castle Rock
1936 Wies, Frederick Albert, 220 Damascus Rd.
1958 Zimmerman, Marvin Paul, 960 Main

CHESHIRE 06410

1952 Armbruster, Lois Deming, Main
1953 Butler, Robert William, 146 Park Pl.
1949 Dayton, Charles John, 15 Chipman Dr.
1975 DiMauro, Louis Mario, 1175 South Main
1976 Goco, Evelyn, 55 Mountain Brook Dr.
1963 Grycz, Henry J., 432 Maple Ave.
1963 Heiger, Arnold Alexander, 1175 South Main
1960 Kramer, Fred Michael, 167 Spring
1975 Landy, Gail, 81 Fernwood Lane
1959 Mack, Gerhard T., 577 South Main
1973 Miller, Mary Margaret, 577 South Main
1960 Mirkhani, Mahmood, 1175 South Main
1923 Moore, Wilbur John, 15 Chipman Dr.
1940 Neff, William Everett, Jr., 93 Main
1939 Oxnard, Edward Warren, 15 Chipman Dr.
1976 Panaligan, Noble, Rosemarie, 152 Payne Dr.
1974 Rauch, Erlinda, 475 Riverside Dr.
1976 Salzman, Michael Alan, 15 Chipman Dr.
1977 Sataline, Lee R., 366 South Main
1975 Smith, Gordon Waldo, 402 Highland Ave.

DERBY 06418

1970 Baker, Earl Lewin, 314 Elizabeth
1968 Boltax, Robert Stanley, 299 Seymour Ave.
1968 Bratu, Marcel, 445 New Haven Ave.
1971 Brown, William Tibor, 190 Main
1969 Cadelina, Wilfredo Enriquez, 130 Division
1965 Catanuto, Nicholas Thomas, 435 New Haven Ave.
1969 Davidson, Alan Cahn, 445 New Haven Ave.
1956 Deluca, Vincent Alfred, Jr., 130 Division
1966 Dineen, Joseph Patrick, 299 Seymour Ave.
1975 DiPasquale, Ned M., Plaza-on-the-Green
1958 Doheny, James Joseph, 435 New Haven Ave.
1974 Fine, Norman L., Griffin Hospital
1966 Gagliardi, Joseph Matthew, Jr., 67 Maple Ave.
1946 Galen, Jack Harris, 445 New Haven Ave.
1966 Habib, Nabil Iskander, 299 Seymour Ave.
1957 Holden, Jack, 445 New Haven Ave.
1976 Katz, Richard M., 299 Seymour Ave.
1975 Kligfeld, Michael, Plaza-on-the-Green
1971 Lawson, Jack Philip, Griffin Hospital
1970 Levy, Richard Martin, 67 Maple Ave.
1967 Marignani, Pierluigi, 130 Division
1959 Milazzo, Nicholas Joseph, 299 Seymour Ave.
1974 Moll, David, 299 Seymour Ave.
1971 Myerson, Daniel Allen, Griffin Hospital
1971 Myerson, Paul J., Griffin Hospital
1975 Narowski, Cecilia A., 17 Elizabeth
1944 Narowski, John Joseph, 17 Elizabeth
1910 Parlato, Michael Antonino, 101 Sentinel Hill Rd.
1969 Pavlo, Ludwig Joseph, 380 New Haven Ave.
1969 Pavlo, Maria Margarete, 380 New Haven Ave.
1975 Pearlstein, Arthur T., Plaza-on-the-Green
1976 Purpora, David Peter, 435 New Haven Ave.
1925 Rentsch, Samuel Burton, 61 Seymour Ave.
1975 Scarpa, Francis Joseph, 299 Seymour Ave.
1975 Schwartz, Kenneth V., Griffin Hospital
1964 Sikorski, Jerzy Jan, Griffin Hospital
1967 Silverstein, David M., 5 Maple Ave.
1974 Slepian, Jacob Zeiger, 101 Elizabeth
1968 Stier, Stanley D., 435 New Haven Ave.
1958 Wirth, Michael Nahum, 58 Minerva
1962 Wugmeister, Michael, Griffin Hospital

DEVON 06462

1947 Malone, Robert Francis, 21 Rivercliff Dr.

EAST HAVEN 06512

1952 Albis, Francis Joseph, 60 Edward
1952 Albis, Michael Daniel, 60 Edward
1940 Balletto, Vincent, 535 Thompson Ave.
1929 Fiskio, Peter William, 280 Main
1940 Garofalo, Mario Louis, 80 Morgan Ave.
1961 Mancini, Anthony D., 176 Tyler
1953 Van Eck, William Frederik, 300 Main
1954 Vermande, Gertrude Joanna, 300 Main

GUILFORD 06437

1951 Adams, Elisabeth C., On the Green
1976 Allen, Edward W., 504 Goose La.
1977 Bavor, Clayton Woodward, 82 Russet Dr.
1963 Brogden, John Malcolm, 152 Broad
1934 Canfield, Norton, 49 State
1974 Crawford, William Osgood, 264 Church St.
1958 Cunningham, Peter Ritsher, 152 Broad
1974 Cwik, Ronald Arthur, 152 Broad
1954 Emery, Felice Menuez, 85 Long Hill Rd.
1976 Fink, Martin E., 150 Boston Post Rd.
1976 Haeseler, Frederick D., 29 Whitfield
1948 Horton, William Hanson, Falcon Rd., Sachem's Head
1952 Igersheimer, Walter Wilhelm, 111 Dolan Dr.
1971 Lowry, Elizabeth C., 152 Broad
1970 McGrath, Brian John, 652 Boston Post Rd.
1954 Mermann, Alan Cameron, 152 Broad
1974 Pruett, Kyle Dean, 10 Fernwood Dr.
1971 Rapkin, Robert Michael, 652 Boston Post Rd.
1963 Wakeman, Edward Maurice, 152 Broad

HAMDEN

1958 Arnstein, Robert Leo, 79 Killdeer Rd. 06517
1976 Bekeny, Dennis Paul, 243 Skiff 06517
1955 Bellis, John Marvin, Jr., 2804 Whitney Ave. 06518
1962 Brady, James Joseph, 2447 Whitney Ave. 06518
1955 Coe, Ronald Eliot, 1727 Whitney Ave. 06517
1973 Cohn, George Louis, 67 Charlton Hill 06518
1953 Colwell, Bradford Stevens, 299 Washington Ave. 06518
1936 Corey, Walter Van Arsdale, 1188 Whitney Ave. 06517
1940 Cutler, Hermann Shepard, 1100 Dixwell Ave. 06514
1935 D'Esopo, Joseph Nicholas, 174 Blake Rd. 06517
1964 Della Valle, Louis, 1199 Whitney Ave. 06517
1969 Fezza, Andrew John, 2572 Whitney Ave. 06518
1956 Fezza, Michael Lawrence, 2572 Whitney Ave. 06518
1959 Fischer, Daniel George, 99 Circular Ave. 06514
1970 Fishbone, Gerald, 50 Myra Rd. 06517
1973 Ghofrany, Fereshteh Naghshineh, 299 Washington Ave. 06518
1972 Ghofrany, Shukrullah, 299 Washington Ave. 06518
1948 Greenhouse, H. Robert, 72 Rochford Ave. 06514
1949 Haley, John Carlin, 295 Washington Ave. 06518
1972 Hambly, Robert Gagnon, 1100 Dixwell Ave. 06514
1951 Hart, Robert W., 295 Washington Ave. 06518

1971 Hyland, John, 200 Westwood Rd. 06518
1967 Jones, Charles Ray 295 Washington Ave. 06518
1966 Kay, Foster, 2447 Whitney Ave. 06518
1946 Kertesz, Johann, 1110 Still Hill Rd. 06518
1949 La Femina, Nicholas Francis, 60 Dawes Ave. 06517
1972 Langenauer, Bernard J., 35 Lincoln 06518
1961 Levenstein, Marvin, 2572 Whitney Ave. 06518
1970 Levis, Albert Jesula, 295 Washington 06518
1958 Lion, Daniel Joseph, 1797 Whitney Ave. 06517
1956 Loewald, Elizabeth Longshore, 2 Bayberry Rd. 06517
1942 McKeon, James Joseph, 1828 Dixwell Ave. 06514
1940 Mendelsohn, William, 707 Mix Ave. 06514
1954 Newton, Robert Floyd, 2508 Whitney Ave. 06518
1938 Parente, Leonard, 185 Braeside Dr. 06514
1949 Radowiecki, M. Walter, 193 Corbin Rd. 06517
1977 Rossman, Allen M., 42 Troiano Rd. 06518
1956 Rubin, Arthur A., 5 Hearn Lane 06514
1914 Russell, Thomas H., 46 Jackson Rd. 06517
1971 Saracco, Fernando P., 2690 Whitney Ave. 06518
1958 Schlessel, Theodore Elliot, 1100 Dixwell Ave. 06514
1948 Scholhamer, Charles Frederick, 9 Killdeer Rd. 06517
1975 Scialla, Anthony V., 2690 Whitney Ave. 06518
1929 Shure, Abraham Lewis, 22 North Lake Dr. 06517
1972 Silverman, Nira Rubin, 91 Corbin Rd. 06517
1946 Slater, Daniel, 1100 Dixwell Ave. 06514
1927 Slater, Morris, 1100 Dixwell Ave. 06514
1946 Snoke, Albert Waldo, 100 Santa Fe Ave. 06517
1966 Tjimis, Pavlos Demetriou, 2447 Whitney Ave. 06518
1947 Trifari, Leopold Mariano, 55 Ranch Rd. 06517
1943 Verstandig, Charles Coleman, 19 Filbert 06517
1945 Waldemer-Kertesz, Johanna, 1110 Still Hill Rd. 06518
1961 Zale, Charles, 2331 Whitney Ave. 06518
1975 Zinn, Donald F., 205 Hepburn Rd. 06517

MADISON 06443

1946 Birnbaum, Hyman Bunge, Boston Post Rd.
1947 Elgosin, Richard B., 10 Oak Ave.
1976 Keszler, Kornelia, 25 Durham Rd.
1976 Sayers, Ross, 1089 Boston Post Rd.
1967 Sklaire, Martin William, Wall

MERIDEN

1963 Abrahams, Irwin Willard, 116 Cook Ave. 06450
1965 Albert, Marvin, W. W. II Veterans Mem'l Hospital 06450
1974 Alonso, Luis, 377 Broad 06450
1950 Badner, Donald, Harold, 405 Broad 06452
1976 Barroeta, Gustavo R., Meriden-Wallingford Hospital 06450
1977 Biondino, C. Robert, 140 Green Rd. 06452
1959 Brown, Marion R. S. 95 East Main 06451
1947 Brown, Patrick Neely, 95 East Main 06451 and 133 Main, Bristol 06010
1948 Burbank, John, 335 Cook Ave. 06450
1969 Burch, Peter George, 477 South Broad 06450
1955 Butenas, Carl, 319 Hanover 06450
1929 Campbell, Sherburne, 1192 East Main 06451
1962 Campione, Matthew Philip, 405 Broad 06452
1937 Carey, William Clark, 377 Broad 06450
1976 Castro, Raymond A., Meriden Hospital Rad. Assoc. 06450
1974 Cohen, Gary Mark, 219 W. Main 06450
1973 Concannon, Patrick Ronald, W.W. II Veterans Hospital 06450
1967 Conroy, Michael M., 473 Broad 06450
1949 Cusnir, Marion, 110 Colony 06450
1948 Dickinson, George Herbert, 199 West Main 06450
1946 DiGiandomenico, Albert Theodore, 95 East Main 06451
1956 Esposito, Michael Joseph, 379 Oregon Rd. 06450
1975 Flores, Silvia Emilia, P.O. Box 2415
1950 Flynn, Charles Thomas, Jr., 140 Green Rd. 06452
1948 Flynn, John Benedict, 377 Broad 06450
1940 Fox, George Graham, 140 Green Rd. 06452
1974 Franceson, Sergio Degan, 391 Broad 06450
1967 Franz, Adolph II, 140 Green Rd. 06452
1973 Friedman, Stanley Ira, 219 West Main 06450
1964 Fritz, Harvey Lawrence, 219 West Main 06450
1946 Glike, Frederick Philip, 12 Linsley Ave. 06450
1975 Goodman, DorisT.H., 2 Brownstone Ridge 06450
1966 Goodman, Joseph Louis, 219 West Main 06450
1972 Gottlieb, Marvin B., 116 Cook Ave. 06450
1976 Groome, Douglas John, 285 Broad 06450
1967 Guttenberg, Irving, 219 West Main 06450
1929 Hall, William Edward, 5 South Broad Ter. 06450
1959 Hennessey, John Francis, 181 Cook Ave. 06450
1975 Hollander, Michael Eugene, 116 Cook Ave. 06450
1974 Horton, Paul Chester, 234 Hobart 06450
1974 Jeshuran, Winston R., 1146 West Main 06450
1957 Kahn, Daniel, 130 East Main 06451
1970 Kaplan, Harold Paul, 219 West Main 06450
1941 Katz, Irving, 304 Broad 06452
1976 Kim, In Kwiy, 219 West Main 06450
1944 Krochmal, Henry, P.O. Box 942 06450
1975 Lasser, Joan L., 335 Cook Ave. 06450
1973 Lehrman, Jerrold C., 377 Broad 06450
1975 Levin, Lewis, 12 Curtis 06450
1939 L'Heureux, Jerome Arthur, 405 Broad 06452
1934 Lirot, Stephen L., 410 East Main 06450
1946 Lohrmann, Walter, 11 Live Oak Lane 06452
1970 McGann, Robert Farquharson, 224 Cook Ave. 06450
1975 Meyer, Louis, 405 Broad 06450
1934 Misuk, Joseph Francis, 430 Broad 06452
1972 Moreschi, Francesco Panfilo, 412 South Broad 06450
1972 Morrison, Robert Francis, 285 Broad 06450
1976 Mullin, Robert Lester, Meriden-Wallingford Hospital 06450
1960 O'Regan, Patrick Tobias, 24 Columbus Ave. 06450
1975 Ortiz, Fernando, 412 South Broad 06450
1969 Osadchey, Lance M., 108 Sweet Birch Dr. 06450
1966 Paggioli, John William, 728 Paddock Ave. 06450
1956 Parke, David William, 477 South Broad 06452
1960 Patterson, Earl Stewart, 236 West Main 06450
1952 Pepe, Vincent, 116 Cook Ave. 06450 and 26 Fair, Wallingford 06492
1954 Persons, Ray E., 71 Parker Ave. 06452
1931 Pierson, Louis A., 199 West Main 06450
1967 Pratt, Hamp Smead, 405 Broad 06450
1966 Pyun, Kyŭm Sik, 181 Cook Ave. 06450
1976 Redmond, John William, 477 South Broad 06450
1973 Ritter, Maria Elisabeth, Canberra Laboratories, 45 Gracey 06450
1947 Robb, Samuel Aloysius, 285 Broad 06450
1966 Russell, William, 377 Broad 06450
1966 Scheer, Carl Weston, 335 Cook Ave. 06450
1956 Schurgast, Anselm W., 130 East Main 06451
1968 Shiffman, Irving, 219 West Main 06450
1954 Sillman, Eugene, 67 Lambert 06450
1942 Smith, Edward Rice, 543 West Main 06450
1957 Tonkonow, Francis Harold, 140 Green Rd. 06452
1950 Trent, Sophie Clara, 96 Boylston, North 06451
1963 Wagshul, Ely Cutler, 285 Broad 06450
1956 Wallace, Edward Paez, 285 Broad 06450
1946 White, Howard Thomas, 84 Live Oak Lane 06452
1971 Willett, Leo Vincent, Jr., 140 Green Rd. 06450
1954 Zimerman, Joseph, 319 Hanover 06450

MIDDLEBURY 06762

1953 Arnold, William Parsons, Jr., White Deer Rock Rd.
1975 Campbell, David I., Whittemore Rd.
1939 Hinchey, Richard James, Westwood Dr.
1957 Liao, Sung Jwi, Sky Line Dr.
1941 Riccio, Joseph S., Blueberry Knoll

MILFORD 06460

1934 Andrus, Oliver Burton, P.O. Box 415
1970 Baird, William Hennings, 105 North
1938 Barney, Walter Edward, 2044 Bridgeport Ave.
1974 Baron, Michael Austin, 75 New Haven Ave.
1957 Bayless, Allan Eugene, Milford Hospital
1977 Blum, Richard Stephen, 112 Broad
1970 Boyd, John Edward, 280 Broad
1956 Brandt, Allan Adolph, 2047 Bridgeport Ave.
1972 Brothers, David M., 135 Cherry
1976 Buckley, Donald Francis, 221 Broad
1949 Buckman, Robert Francis, 2068 Bridgeport Ave.
1975 Chandrashekara, Birur G., 2044 Bridgeport Ave.
1967 Chastanet, Denis Vernon Peter, 54 Darina Pl.
1957 Chiappinelli, Dante, 2044 Bridgeport Ave.
1969 Coassin, Nicholas Angelo, 75 New Haven Ave.
1962 Coppes, Henri R., 280 Broad
1963 Corsaro, Theodore Pascal, 2044 Bridgeport Ave.
1968 De Negre, Louis Mark, 2044 Bridgeport Ave.
1963 Engel, Harry Paul, 2044 Bridgeport Ave.
1959 Fink, Howard David, 75 New Haven Ave.
1959 Fox, Marvin Irving, 122 Broad
1976 Ganesan, Murugesapillai, 2068 Bridgeport Ave.
1959 Gruskay, Frank Louis, 1 Golden Hill
1963 Hare, Edward Treen, Jr., 21 Cherry
1976 Huszar, Theresa G., 309 Seaside Ave.
1960 Hyland, Francis Joseph, 284 Broad
1960 Janet, Samuel J., 234 Broad
1964 Keegan, James Thomas, 75 New Haven Ave.
1959 Kerin, Robert, 112 Broad
1944 Langner, Helen P., 1 Shipyard Lane
1946 Lipkoff, Clarence Joseph, 2068 Bridgeport Ave.
1975 Lundborg, Carl Burton, 112 Broad
1972 Meia, Harley B., 122 Broad
1966 Messore, Giacomo, Milford Hospital
1971 Naiman, Peter T., 281 Seaside Ave.
1973 Pardi, Victor Morris, 123 Cedar Hill Rd.
1946 Parrella, Gioacchino, 2044 Bridgeport Ave.
1964 Philbrick, Clement John, Jr., 284 Broad
1974 Ragaza, Aleflor T., 2044 Bridgeport Ave.
1953 Rapoport, Leonard M., 75 New Haven Ave.
1975 Rosenthal, Benjamin B., 2051 Bridgeport Ave.
1959 Shelling, Richard Lawrence, 1 Golden Hill
1964 Stein, Michael Lewis, 1 Golden Hill
1933 Stetson, Harry Warren, 46 Robert Treat Pkwy.
1956 Tierney, James William, 2044 Bridgeport Ave.
1946 Timm, Alexander Berthold, Jr., 36 West Main
1977 Wang, Pang, Hsung, 309 Seaside Ave.
1947 Weston, Robert Alphaeus, Jr., 2068 Bridgeport Ave.
1968 Winters, Barry Michael, 73 Golden Hill
1964 Wolfson, Alvin, 284 Broad
1969 Yoon, Hee R., 2044 Bridgeport Ave.

NAUGATUCK 06770

1963 Cornacchia, Rocco, 567 Field
1963 Elser, John Peter, Church
1968 Falk, Maurice, 577 North Church
1958 Gerber, Edward, Jr., 305 Church
1976 Greengold, Julian Bart, 305 Church
1955 Hill, William Edward, Jr., 150 Meadow
1963 Labriola, Gerald, 577 North Church
1972 Ransome, Oscar John, 577 North Church
1940 Tylec, Leo Louis, 156 Meadow
1926 Williams, Edward Everett, 580 Hillside Ave.
1975 Yu Ching-Yi, 35 Porter Ave.

NEW HAVEN

1975 Aaronson, Robert M., 2 Church South 06519
1945 Albom, Jack Jonathan, 2 Church South 06519
1964 Albright, James A., 789 Howard Ave. 06504
1953 Alderman, Donald Bruce, 1423 Chapel 06511
1960 Alpert, Abraham Edward, 301 Orchard 06511
1967 Altshul, Victor A., 58 Trumbull 06510
1932 Amatruda, Frank Gabriel, 459 Orange 06511
1955 Ameen, Lane, 210 Prospect 06511
1964 Amore, Frederick Robert, 167 Maple 06511
1969 Anderson, Frederick Paffard, 150 Sargent Dr. 06511
1976 Angoff, Ronald, 116 Sherman Ave. 06511
1976 Ariyan, Stephen, 333 Cedar 06510
1965 Arons, Marvin Shield, 2 Church South 06519
1968 Asis, Jose, 301 Orchard 06511
1969 Atocha, Jose, 1435 Chapel 06511
1975 Aversa, John Michael, 123 York 06511
1971 Baker, Sidney MacDonald, 150 Sargent Dr. 06511
1972 Balsam, Rosemary Harriett, 17 Hillhouse Ave. 06520
1954 Baratz, Merrill A., Yale Health Service 06520
1955 Barile, Albert William, 310 Winthrop Ave. 06511
1973 Barse, Richard Joseph, 1308 Chapel 06511
1973 Bartlett, Edward W., 357 Whitney Ave. 06511
1957 Baskin, Arnold M., 111 Park 06511
1930 Batelli, Clement Francis, 328 Townsend Ave. 06512
1955 Batt, Harold David, 301 Orchard 06511
1925 Battista, Anthony William, 111 Osborn Ave. 06511
1975 Baue, Arthur E., 333 Cedar 06510
1976 Baughn, Steven Peyton, 428 Columbus Ave. 06519
1963 Beatrice, Marianne Angela, 1370 Chapel 06511
1974 Belleza, Norberto, Alegarbes, 789 Howard Ave. 06504
1965 Bender, Morton, 100 York 06511
1940 Berlowe, Max Llewellyn, 2 Church South 06519
1949 Berman, Sidney, 123 York 06511
1944 Berneike, Robert R., 878 Howard Ave. 06519
1955 Billings, William Clarke, Yale Health Service 06520
1940 Biondi, Benedict, 120 Blatchley Ave. 06513
1974 Bobrow, Samuel Niel, 186 Sherman Ave. 06511
1969 Boltax, Sandra Parzow, 333 Cedar 06510
1954 Bonner, George Arthur, 111 Sherman Ave. 06511
1960 Bove, Joseph Richard, P.O. Box 1001 06504
1963 Bradburn, Hubert Benjamin, 123 York 06511
1971 Bradford, Kenneth Alan, 116 Sherman Ave. 06511
1967 Branch, James Christian, P.O. Box G, Westville Station 06515
1951 Brand, Elliott Saul, 123 York 06511
1977 Brauer, Rima Lois, 291 Whitney Ave. 06511
1967 Braverman, Irwin Merton, 333 Cedar 06510
1971 Brink, Adolph Joseph, 227 Church 06510
1962 Brochin, Malcolm, 136 Sherman Ave. 06511
1976 Brodner, Robert Albert, 333 Cedar 06510
1956 Brodoff, Stanley S., 2 Church South 06519
1935 Brody, Bernard Stephen, 114 Sherman Ave. 06511
1946 Bruno, Joseph Juluis, 1266 Forest Rd. 06515
1943 Calabresi, Massimo, 300 Ogden 06511
1960 Camilleri, Joseph Angelo, 878 Howard Ave. 06519
1957 Cappucci, Louis William, 116 Avon 06511
1974 Carangelo, Edward Vincent, 313 Humphrey 06511
1916 Carelli, Genesis Frank, 256 Yale Ave. 06515
1972 Carlson, David Adelbert, 135 Whitney Ave. 06510
1949 Carter, Max George, 670 George 06510 and 3 Second Ave., Waterbury 06710
1964 Cassin, Carl Michael, 2 Church South 06519
1946 Castiglione, Frank Michael, 41 Trumbull 06510
1975 Cavallaro, Peter Julius, 2 Church South 06519
1932 Celentano, Luca Eugene Humbert, 442 Elm 06511
1975 Chang, Effie Chen-Chu, 111 Sherman Ave. 06511
1961 Chang, Suk Choo, 210 Prospect 06511
1975 Chen, Michael Graham, Yale Univ. Sch. Med. 06510
1946 Cheney, Charles Brooker, 111 Park 06511
1956 Chetrick, Allen, 2 Church South 06519
1975 Ciardiello, Kenneth Anthony, 2 Church South 06519
1947 Cipriano, Anthony Pasquale, 451 Orange 06511
1938 Clarke, Clement Cobb, 240 Bradley 06510
1946 Clement, David Hale, 2 Church South 06519
1976 Clement, Patrick Anthony, 428 Columbus Ave. 06519
1935 Climo, Samuel, 291 Whitney Ave. 06511

1950 Cohart, Edward M., 60 College 06510
1971 Cohen, Lawrence Sorel, 333 Cedar 06510
1924 Cohen, William, 1435 Chapel 06511
1971 Cole, Jack Westley, 333 Cedar 06510
1964 Cole, Ransey Guy, 432 Dixwell Ave. 06511
1951 Coleman, Jules Victor, 135 Whitney Ave. 06510
1974 Collins, James Thomas, Jr., Hunter Radiation Therapy, Yale Med. Sch. 06510
1968 Collins, William Francis, 333 Cedar 06510
1931 Connolly, Arthur James, 136 Sherman Ave. 06511
1958 Conte, Bernard Lewis, 598 George 06511
1961 Conte, Harry Charles, 598 George 06511
1939 Conte, Mario Gero, 1435 Chapel 06511
1943 Conway, David Francis, Jr., 111 Sherman Ave. 06511
1970 Cooper, Richard Arnold, 315 Whitney Ave. 06511
1973 Coppola, Paul Joseph, 100 York 06511
1931 Corradino, Charles Louis, 2 Church South 06519
1955 Cousins, Marvin Lee, 1308 Chapel 06511
1975 Covey, Susan Singer, Hospital of St. Raphael 06511
1967 Cronin, Michael Thomas Ignatius, 67 Edgehill Rd. 06511
1975 Cruz, Luis R., 136 Sherman Ave. 06511
1952 Cusanelli, Gabriel Nicholas, 235 Bishop 06511
1924 Dallas, Marion, 248 Bradley 06510
1971 Dann, Oliver Townsend, 190 Everit 06511
1951 Davey, Lycurgus Michael, 2 Church South 06519
1958 Davis, Clarence Daniel, 333 Cedar 06510
1976 Dean, Richard John, Yale-New Haven Hospital 06504
1973 DeDios, Victor K., 191 Sherman Ave. 06511
1942 de Forest, Gideon Knapp, 309 Edwards 06511
1951 Delgrego, Arthur L., 301 Orchard 06511
1951 D'Elia, Pierino Francis, 1423 Chapel 06511
1974 Della Porta, Joseph, 1471 Chapel 06511
1962 Del Pizzo, Alphonse, 1423 Chapel 06511
1964 Demir, Peter, 2 Church South 06519
1967 DePonte, Ralph Joseph, 123 York 06511
1943 de Suto-Nagy, Ilona Krasso, 139 Alston Ave. 06515
1977 Di Sabatino, Charles A. Jr., 2 Church South 06519
1961 Dock, Donald Stone, 1450 Chapel 06511
1956 Dolinsky, Albert Harold, 2 Church South 06519
1972 Dowaliby, James Michael, II, 2 Church South 06519
1965 Downing, Lewis Clinton, 1488 Chapel 06511
1976 Dwyer, Francis Doyle, 245 Lakeview Terr. 06515
1948 Dwyer, Hugh Leo, Jr., 2 Church South 06519
1954 Ebbert, Arthur, Jr., 333 Cedar 06510
1969 Edelson, Marshall, 25 Park, G.E.B. 617 06519
1967 Esdaile, Wilbur Walter, 466 Dixwell Ave. 06511
1976 Esposito, Joseph, 347 Kneeland Rd. Ext. 06512
1968 Etkind, Edward Lawrence, 1546 Chapel 06511
1946 Etkind, Meyer George, 1546 Chapel 06511
1925 Evans, Theodore Schlosser, 200 Linden 06511
1970 Fabbri, Remo, Jr., 31 High 06510
1971 Farber, Leonard Raymond, 186 Sherman Ave. 06511
1950 Fasanella, Rocko Michael, 842 Howard Ave. 06519
1957 Fasano, Leonard Alfonse, 980 Whalley Ave. 06515
1964 Fazzone, Philip Robert, 670 George 06511
1968 Fearon, Richard Eubanks, 2 Church South 06519
1969 Fenn, John E., P.O. Box 1001, Yale-New Haven Hospital 06504
1966 Fenton, Robert H., 654 George 06511
1966 Ferando, Louis John, 1427 Chapel 06511
1973 Fessel, Jon Michael, 111 Park 06511
1951 Filer, Harry Lambert, Jr., 1423 Chapel 06511
1974 Finseth, Frederick James, 333 Cedar 06510
1966 Fischer, David Seymour, 60 Temple 06510
1969 Fischer, James J., 789 Howard Ave. 06504
1948 Fitzpatrick, Eugene Joseph, 111 Park 06511
1973 Flagg, Stephen Vreeland, 111 Park 06511
1972 Flamm, Gerald Howard, 1450 Chapel 06511
1954 Fleck, Stephen, 25 Park 06519
1929 Flynn, Harold Aloysius, 464 Dixwell Ave. 06511
1953 Flynn, John Hine, 41 Trumbull 06510
1974 Forman, Barr H., 1401 Chapel 06511
1950 Forman, Joseph Bernard, 874 Howard Ave. 06519
1953 Fournier, Reginald E., 338 Alden Ave. 06515
1976 Frank, Steve M., 428 Columbus Ave. 06519
1956 Frankel, Saul Arnold, 2 Church South 06519
1975 Frazier, William H., 333 Cedar 06510
1953 Frechette, Eugene Joseph, Jr., 1441 Chapel 06511
1963 Freedman, Jerome Kenneth, 1423 Chapel 06511
1951 Freedman, Morris, 169 Davenport Ave. 06519
1972 Freehill, Patrick J., 494 Winthrop Ave. 06511
1936 Freeman, David, 43 College 06510
1962 Friedman, Cyrus Robert, 65 Trumbull 06510
1941 Fuldner, Russell Victor, 178 Sherman Ave. 06511
1976 Gaines, J. David, 428 Columbus Ave. 06519
1976 Galloway, Shelby, Hospital St. Raphael 06511
1976 Geha, Alexander S., 333 Cedar 06510
1937 Gentile, Angelo Louis, 1488 Chapel 06511
1937 German, William John, 2 Church South 06519
1923 Gettings, James Augustus, 256 McKinley 06515
1976 Gibson, Douglas W., Hospital St. Raphel 06511
1951 Gibson, Fred, 260 Knollwood Dr. 06515
1953 Glaser, Gilbert H., 333 Cedar 06510
1947 Glaser, William, 2 Church South 06519
1955 Glassman, Irving, 186 Sherman 06511
1926 Glazer, Morris, 71 Edgewood Way 06515
1949 Glenn, William W. L., 333 Cedar 06510
1974 Glickman, Morton G., Yale-New Haven Hospital 06504
1947 Goetsch, John Black, 878 Howard Ave. 06519
1976 Gold, Jeffrey D., 1423 Chapel 06511
1972 Goldblatt, Philip Brian, 315 Whitney Ave. 06511
1957 Goldenberg, Ira Storin, 333 Cedar 06510
1958 Goldenthal, Summer, 2 Church South 06519
1963 Goldstein, Jacob, 517 Ellsworth Ave. 06511
1954 Goldstein, Paul Stanley, 1450 Chapel 06511
1951 Golia, Ulyssess Vitalio, 1423 Chapel 06511
1976 Gonzalez, Caleb, 789 Howard Ave. 06504
1964 Goodman, Alan Herman, 2 Church South 06519
1971 Goodrich, Isaac, 2 Church South 06519
1950 Goodyear, Allan Victor, 333 Cedar 06510
1954 Gordon, Martin Eli, 111 Sherman Ave. 06511
1952 Gordon, Robert Stanton, 111 Park 06511
1968 Gottlieb, Felix Isaac, 1484 Chapel 06511
1975 Gouterman, Ira H., 333 Cedar 06510
1966 Graham, Andrew Jesse, 2 Church South 06519
1975 Grauer, Leonard Edwin, 60 Temple 06510
1975 Graziano, Antonio, 422 Dixwell Ave. 06511
1967 Greenberg, Alvin Donald, 2 Church South 06519
1924 Greenhouse, Barnett, 1687 Boulevard 06511
1960 Greenspan, Richard Henry, 333 Cedar 06510
1958 Greenwald, Willard F. Jr., 111 Park 06511
1939 Guida, Francis Paul, 1441 Chapel 06511
1976 Guida, Paul C., 1441 Chapel 06511
1964 Gurwitt, Alan Richard, 315 Whitney Ave. 06511
1962 Handler, Seymour L., 360 Orange 06511
1967 Hansen, Thomas Wilcox, 2 Church South 06519
1975 Hanson, Thomas Michael, 100 York 06511
1931 Harrison, Elizabeth Ross, 255 Bradley 06510
1935 Hart, James Clement, 820 Elm St. 06511
1953 Harvard, Bell Marvin, Jr., 2 Church South 06519
1952 Harvey, Richard Bennett, 251 Edward 06511
1954 Hayes, Mark Allen, 333 Cedar 06510
1942 Hersey, Thomas Francis, 291 Whitney Ave. 06511
1973 Hicks, Jeanne E., 123 York 06511
1970 Higgins, Don Cheney, 111 Park 06511
1943 Hodgkins, Charles Henry, 315 Whitney Ave. 06511
1964 Hogan, Gilbert Francis, 100 York 06511
1970 Holley, Marshall, 226 Dixwell Ave. 06511
1960 Houlihan, Robert Kenneth, 2 Church South 06519
1976 Hunt, Kevin James, 1401 Chapel 06511
1955 Hurwitz, Sidney, 2 Church South 06519
1973 Hurzeler, Marc A., 100 York 06511
1974 Isay, Richard Alexander, 100 York 06511

1967 Jackson, Stanley Webber, 34 Park 06519
1967 Jacobson, Harvey, 1485 Chapel 06511
1976 Jokl, Peter, 17 Hillhouse Ave. 06520
1938 Jordan, Robert Hough, 111 Park 06511
1949 Joseph, Lester George, 175 Bishop 06511
1974 Kaplowe, Joseph Louis, 1955 Sherman Ave. 06511
1967 Kashgarian, Michael, 310 Cedar 06510
1955 Katz, Jay, 65 Trumbull 06510
1951 Kazanjian, Norton Artin, 1423 Chapel 06511
1967 Kenney, James Duncan, 309 Edwards 06511
1976 Kerin, William, 301 Orchard 06511
1943 Kessler, Frederick, 100 York 06511
1975 Khachane, Vasant Bhojraj, 670 George 06511
1972 Khu, Enrico G., 191 Sherman Ave. 06511
1976 Kim, Charles Chang Suh, 1435 Chapel 06511
1964 Kim, Kisik, 136 Sherman Ave. 06511
1962 King, Russell Patrick, 100 York 06511
1951 Kirchner, John Albert, 333 Cedar 06510
1965 Kitahata, Luke Masahiko, 789 Howard Ave. 06504
1938 Klatskin, Gerald, 333 Cedar 06510
1975 Knobelman, Richard A., 60 Temple 06510
1971 Knowlton, Arthur Howard, Hospital of St. Raphael 06511
1974 Koenigsberg, Daniel Meir, 62 Trumbull 06510
1974 Koss, Neal, 333 Cedar 06510
1940 Koufman, William Bernard, 186 Sherman Ave. 06511
1965 Kra, Siegfried J., 2 Church South 06519
1964 Krassner, Leonard Sanders, 116 Sherman Ave. 06511
1954 Kreis, David John, 2 Church South 06519
1972 Krizek, Thomas Joseph, 333 Cedar 06510
1942 Krosnick, Gerald, 2 Church South 06519
1935 Krosnick, Morris Yale, 119 West Park Ave. 06511
1949 Kummer, Alfred John, 251 Edwards 06511
1937 Kushlan, Samuel Daniel, Yale-New Haven Hospital, P.O. Box 1001 06504
1976 Kutcher-Henchel, Jacqueline Ann, 60 Temple 06510
1974 Kwass, Walter, 1423 Chapel 06511
1957 LaCamera, Robert George, 878 Howard Ave. 06519
1948 Lach, Frank Edward, 181 Edwards 06511
1961 Landau, Saul Jack, 60 Temple 06510
1976 Lande, Saul, 1450 Chapel 06511
1961 Lattanzi, William Edward, Hospital of St. Raphael 06511
1954 Laudano, Andrew John, 309 Edwards 06511
1936 Lavietes, Paul Harold, 150 Sargent Dr. 06511
1957 Lavietes, Stanley Robert, 2 Church South 06519
1976 Lavin, William, 428 Columbus Ave. 06519
1949 Lavorgna, Michael Henry, 114 Sherman Ave. 06511
1948 Leavy, Stanley Arnold, 340 Whitney Ave. 06511
1974 Lebson, Robert Edward, 2 Church South 06519
1972 Lee, Keat-Jin, 98 York 06511
1964 Lena, Richard Patrick, 878 Howard Ave. 06519
1957 Lerner, Aaron Bunsen, 333 Cedar 06510
1957 Lerner, Marguerite Rush, 333 Cedar 06510
1923 Levin, Hyman Alexander, 168 Linden 06511
1969 Levine, Ira Richard 65 Trumbull 06510
1974 Levy, Arthur Louis, 186 Sherman Ave. 06511
1956 Levy, Lewis L., 111 Park 06511
1972 Lewis, Dorothy Otnow, 309 Edwards 06511
1948 Lewis, Herbert Daniels, 111 Park 06511
1961 Lewis, Melvin, 333 Cedar 06510
1952 Lidz, Theodore, 25 Park 06519
1951 Lillian, Marvin, 17 Hillhouse Ave. 06520
1961 Lindenmuth, Woodrow Wilson, 333 Cedar 06510
1972 Litman, Robert B., 235 Bishop 06511
1976 LiVolsi, Virginia Anne, 310 Cedar 06510
1975 Livstone, Elliot Marsh, 333 Cedar 06510
1955 Loewald, Hans W., 65 Trumbull 06510
1927 Logan, William Joseph, 412 Whalley Ave. 06511
1972 Lujic, Peter, 1423 Chapel 06511
1976 Lundberg, W. Bruce, 186 Sherman Ave. 06511
1974 Lynch, James Kevin, 2 Church South 06519
1975 Lynch, Vincent Arthur, 2 Church South 06519
1957 Lynch, William Francis, 1441 Chapel 06511
1963 Lytton, Bernard, 789 Howard Ave. 06504
1973 Magendantz, Henry Guenther, 17 Hillhouse Ave. 06520
1974 Mangi, Richard Joseph, 1450 Chapel 06511
1954 Manheim, Gilbert, 111 Sherman Ave. 06511
1963 Maniatis, William R., 41 Trumbull 06510
1972 Mansourian, Vazrick, 1423 Chapel 06511
1965 Margolis, Robert N., 2 Church South 06519
1963 Mark, Harry Horst, 2 Church South 06519
1946 Marshak, Irving Jacob, 254 College 06510
1974 Marshall, John Frederick, Yale-New Haven Hospital 06504
1928 Marvin, H. M., P.O. Box 404 06502
1967 Mass, Henry, 1552 Chapel 06511
1960 Massie, William Jacko, 288 Dixwell Ave. 06511
1957 Mattie, Louis Ralph, 1471 Chapel 06511
1969 Mattson, Richard Henry, 111 Park 06511
1977 McCallum, Richard Warwick, 333 Cedar 06510
1966 McCarthy, Charles P. N., 2 Church South 06519
1972 McCullough, William Boyd, 2 Church South 06519
1949 McDonnell, Robert Ralph, 1441 Chapel 06511
1974 McFarland, Ward John, Jr., 31 High 06511
1974 McGarry, Mary E., 836 Edgewood Ave. 06515
1966 McGuire, Charles William, 174 Sherman Ave. 06511
1972 McKee, John Braxton, Jr., 58 Trumbull 06510
1975 McLoughlin, Michael Joseph, 1441 Chapel 06511
1947 Meigs, J. Wister, 30 College 06510
1955 Mendillo, John Joseph, 628 George 06511
1949 Michel, Lawrence Irwin, 1539 Chapel 06511
1938 Mignone, Joseph, 1450 Chapel 06511
1942 Millen, Samuel Robert, 545 Dixwell Ave. 06511
1961 Milles, Saul Steven, 100 York 06511
1977 Mitler, Lloyd Kenneth, 428 Columbus Ave. 06519
1955 Moench, John Christopher, 111 Park 06511
1942 Mogil, Marvin, 1481 Chapel 06511
1961 Molumphy, Paul Edward, 860 Howard Ave. 06519
1970 Mombello, Gary Edward, 2 Church South 06519
1930 Mongillo, Frank, P.O. Box 415 06502
1972 Montgomery, John Sloan, 850 Howard Ave. 06519
1955 Morgan, Walter Sherman, 111 Park 06511
1943 Mott, Frederick Edward, 136 Sherman Ave. 06511
1974 Mujtaba, Qaiyum, 310 Winthrop Ave. 06511
1970 Musto, David Franklin, 333 Cedar 06510
1944 Mylon, Ernst, 358 Central Ave. 06515
1976 Nash, Irwin, 136 Sherman Ave. 06511
1968 Neumann, Hans H., 1 State 06510
1946 Newman, Harry Rudolph, 2 Church South 06519
1957 Niederman, James Corson, 333 Cedar 06510
1955 Nixon, James Thomas, 178 Sherman Ave. 06511
1960 Nolasco, Dario R., 111 Park 06511
1972 Norton, William S., Hospice Inc., 765 Prospect 06511
1974 Noto, Philip John, 1423 Chapel 06511
1962 Nuland, Sherwin B., 60 Temple 06510
1933 O'Brasky, Louis, 123 York 06511
1950 O'Connell, Edward Bernard, 1427 Chapel 06511
1965 Olson, Lowell Eugene, 860 Howard Ave. 06519
1955 O'Neill, John Joseph, 2 Church South 06519
1965 Ornston, Darius Gray, Jr., 255 Bradley 06510
1953 Palluotto, William Vincent, 1488 Chapel 06511
1949 Pantaleo, Carl Vito, 301 Orchard 06511
1951 Parisi, Anthony J., 178 Sherman Ave. 06511
1964 Passarelli, Nicholas Mario, 2 Church South 06519
1976 Pellegrino, Edmund Daniel, 25 Park 06519
1943 Pelliccia, Orlando, Jr., 27 Elm 06510
1956 Perlswig, Ellis A., 30 Bryden Ter. 06511
1975 Petrea, Ion, 123 York 06511
1974 Petrelli, Eligio A., 455 Orange 06511
1927 Petrelli, Joseph, 455 Orange 06511
1946 Petrillo, Charles, 2 Church South 06519
1953 Phillips, Carlton Charles, 2 Church South 06519

1942 Piccolo, Pasquale A., 114 Sherman Ave. 06511
1965 Pickett, Lawrence Kimball, 789 Howard Ave. 06504
1976 Pincus, Jonathan H., 333 Cedar 06510
1966 Pinkes, Alexander Herman, 183 Bishop 06511
1977 Pisarczyk, Michael Joseph, 45 Trumbull 06511
1942 Pitegoff, Charles Haskell, 1395 Chapel 06511
1965 Polayes, Irving Marvin, 100 York 06511
1938 Poverman, David, 67 Trumbull 06510
1975 Prokop, Edward Kenneth, Hosp. St. Raphael 06511
1968 Prosnitz, Leonard Richard, 333 Cedar 06510
1974 Raccuglia, Giovanni, 136 Sherman Ave. 06511
1973 Ragaza, Edgardo Pamintuan, 670 George 06511
1974 Ranieri, Alfred, Jr., 442 Elm 06511
1943 Redlich, Frederick Carl, 333 Cedar 06510
1974 Reiser, Morton Francis, 25 Park 06519
1952 Rhoades, Earl James, 111 Park 06511
1924 Riccitelli, Mariano Louis, 121 Fountain 06515
1946 Richards, William Raymond, 160 St. Ronan 06511
1965 Rifkin, Boris Gershuny, 1488 Chapel 06511
1973 Rigney, Brian Francis, 1450 Chapel 06511
1938 Rilance, Arnold Boon, 2 Church South 06519
1957 Riley, James Albert, 2 Church South 06519
1972 Riordan, Charles E., 100 York 06511
1951 Robinson, Franklin, 2 Church South 06519
1964 Rosnagle, Robert Shields, 98 York 06511
1961 Rossi, Joseph Gerald, 17 Hillhouse Ave. 06520
1941 Roth, Oscar, 666 George 06511
1964 Roth, Stanley, 1423 Chapel 06511
1949 Roth, Stefanie Z., 666 George 06511
1941 Rozen, Alan Abraham, 113 Howe 06511
1976 Ruben, Harvey L., 77 Knollwood Dr. 06515
1967 Saccio, Joseph Dominick, 309 Edwards 06511
1975 Sachs, Frederick Lee, Hosp. St. Raphael 06511
1933 Salinger, Robert, 309 Edwards 06511
1974 Sasaki, Clarence Takashi, 333 Cedar 06510
1965 Savin, Ronald Clifford, 123 York 06511
1976 Schachter, Edwin N., Yale-New Haven Hospital 06504
1970 Schapira, Henri Jacques, 2 Church South 06519
1954 Scherr, Edward Howard, 111 Park 06511
1967 Schioppo, Dominic Blace, 1485 Chapel 06511
1976 Scholhamer, Charles Frederick, Jr., Yale-New Haven Hospital 06504
1972 Schowalter, John Erwin, 333 Cedar 06510
1974 Schreiber, Sanford Jay, 251 Edwards 06511
1963 Schrier, Robert I., 789 Howard Ave. 06504
1967 Schwartz, A. Herbert, 175 St. Ronan 06511
1965 Schwartz, Marc David, 26 Trumbull 06511
1975 Schwartz, Morris (Mark) L., 1546 Chapel 06511
1969 Schwartz, Solomon S., 1781 Boulevard 06511
1976 Seah, Cheng-Hock, 1423 Chapel 06511
1977 Seigel, Arthur Michael, 60 Temple 06510
1959 Seligson, David, 789 Howard Ave. 06504
1974 Sella, Enzo John, 123 York 06511
1961 Selzer, Richard Alan, 2 Church South 06519
1951 Senn, Milton J. E., 333 Cedar 06510
1976 Shapiro, Daniel Wortsman, 860 Howard Ave. 06519
1949 Shapiro, Robert, 1450 Chapel 06511
1923 Shea, Michael Stephen, 500 Howard Ave. 06519
1974 Shimelman, Myer Morris, 315 Whitney 06511
1950 Shutkin, Ned Manfred, 2 Church South 06519
1963 Siegel, Bernard Shepard, 2 Church South 06519
1966 Siggins, Lorraine Deirdre, Yale Health Service 06520
1975 Sikand, Rajinder S., Hosp. St. Raphael 06511
1960 Silberstein, Morton Henry, 646 George 06511
1971 Silva, Hernan Rodrigo, 1435 Chapel 06511
1923 Silverberg, Samuel Joshua, 2 Church South 06519
1973 Silverman, Joel Peter, 1423 Chapel 06511
1977 Silverstone, David Edward, 60 Temple 06510
1976 Simeone, Joseph Frank, 789 Howard Ave. 06504
1956 Sirot, Gustave, 2 Church South 06519
1955 Skreczko, Charles Kazimir, 67 Trumbull 06510
1942 Smith, Frederick Francis, 226 Dixwell Ave. 06511
1959 Smith, Howard Willis, 98 York 06511
1963 Snow, Bernard, 65 Trumbull 06510
1927 Snurkowski, Charles Vincent, 487 Orange 06511
1973 Son, Yung H., 789 Howard Ave. 06504
1958 Southwick, Wayne Orin, 333 Cedar 06510
1939 Spinner, Samuel, 114 Sherman Ave. 06511
1955 Spiro, Howard M., 333 Cedar 06510
1972 Stein, Stephen Alan, 2 Church South 06519
1960 Stern, Harold, 2 Church South 06519
1974 Stern, Robert, 135 Whitney Ave. 06510
1965 Stern, Stanley, 255 Bradley 06510
1946 Stilson, Carter, 309 Edwards 06511
1974 Stone, Elsa Louise, 708 Orange 06511
1974 Strothers, Gordon, 98 York 06511
1973 Stroup, Ralph Francis, 878 Howard Ave. 06519
1955 Stuermer, Virginia Mae, 2 Church South 06519
1970 Suesserman, Herbert I., 136 Sherman Ave. 06511
1954 Sumner, Martin Leonard, 111 Park 06511
1951 Swan, Bernard Robert, 226 McKinley Ave. 06515
1946 Swift, William Everett, 111 Park 06511
1976 Taub, Arthur, 60 Temple 06510
1963 Tofig, Rafi, 175 Grand Ave. 06513
1964 Toole, Allan Lawrence, 2 Church South 06519
1947 Tortora, Frank, 620 George 06511
1974 Troncale, Frank Joseph, 186 Sherman Ave. 06511
1976 Tsai David Chang-Chur, 428 Columbus Ave. 06519
1963 Turkalo, Jaroslav Konstantin, 100 York 06511
1974 Varrone, John Charles, 181 Edwards 06511
1942 Vegliante, Michael E., 174 Bradley 06511
1941 Vollero, Andrew, 500 Howard Ave. 06519
1926 Wakeman, Edward Taylor, 22 Highland 06511
1973 Wartel, Lawrence Jay, 136 Sherman Ave. 06511
1951 Waters, Levin Lyttleton, 310 Cedar 06510
1972 Watstein, George Joseph, 123 York 06511
1963 Weil, Ulrich Hans, 123 York 06511
1950 Weiner, Joseph, 256 Edwards 06511
1968 Weisinger, Philip I., 100 York 06511
1948 Wessel, Morris Arthur, 878 Howard Ave. 06519
1952 Wexler, Henry, 340 Whitney Ave. 06511
1976 Whelan, Richard Francis, 428 Columbus Ave. 06519
1970 White, Augustus Aaron, 333 Cedar 06510
1968 Wight, Leland Walter, Jr., 116 Sherman Ave. 06511
1956 Wilson, George Leman, 670 George 06511
1931 Wilson, William Rives, 255 Bradley 06510
1975 Wiznia, Robert A., 850 Howard Ave. 06511
1969 Wolff, Emanuel Claud, 251 Edwards 06511
1954 Wong, Andrew S., 2 Church South 06519
1949 Wyatt, Herbert, 135 Whitney Ave. 06510
1965 Yanagisawa, Eiji, 98 York 06511
1958 Yudkin, Gerald Simeon, 257 Church 06510
1947 Zagraniski, Raymond Joseph, 1497 Chapel 06511
1971 Zamore, Leonard H., 136 Sherman 06511
1952 Zanes, Robert P. Jr., 1395 Chapel 06511
1968 Zanker, Theodore, 315 Whitney Ave. 06511
1977 Zeff, Arnold Eugene, 26 Trumbull 06511
1974 Zegans, Leonard Saul, 34 Park 06519
1971 Zonana, Howard Victor, 836 Howard Ave. 06519
1957 Zuckerman, Bernard D., 2 Church South 06519

NORTH BRANFORD 06471

1972 Cheung, Ernest Hang Fai, Foxon Rd., Rt. 80

NORTH HAVEN 06473

1956 Bornstein, Harold David, Jr., 30 Washington Ave.
1941 Cashman, Justin Laurence, 11 St. John
1974 Christoforo, John M., 59 Quinnipiac Ave.
1935 D'Amico, Michael, 411 Middletown Ave.
1965 Errico, Austin Virchow, 256 Quinnipiac Ave.
1961 Fanning, James Bernard, 2 George
1961 Ferranti, Redento D., 6 Hilltop Ter.
1937 Hess, Orvan Walter, 29 Old Orchard Rd.

1976 Ippolito, Raymond Joseph, 6 Lincoln
1924 Jack, John Louis, 1415 Ridge Rd.
1977 Langou, Rene A., 2 Mohawk Dr.
1940 Parrella, Louis Arnold, 25 Trumbull Pl.
1974 Sokhos, Dimitri Roy, 100 Broadway
1923 Taylor, Sterling Price, 1 St. John

ORANGE 06477

1967 Cohen, Gordon Seth, 328 Ann Rose Dr.
1973 Ephraim, Paul D., 291 Lambert Rd.
1968 Godley, John Allan, 291 Lambert Rd.
1975 Grundy, Gordon William, 291 Lambert Rd.
1970 Kaminsky, David M., 291 Lambert Rd.
1952 Karlovsky, Emil Daniel, 291 Lambert Rd.
1969 Lanzi, Robert Anthony, 291 Lambert Rd.
1972 MacRae, Douglas William, 80 Englewood Dr.
1966 Marieb, Norman Joseph, 266 Hemlock Dr.
1956 Morrison, John Blaisdell, 291 Lambert Dr.
1935 Piazza, George Joseph, 380 Boston Post Rd.
1966 Piotrowska-Nyerick, Krystyna Isabella, 513 Howellton Rd.
1972 Sreenivas, Venkatachala I., 235 Midland
1954 Thompson, Maurice Bainton, 341 Knight La.
1960 Ventimiglia, Joseph J., 105 Laurie La.
1967 Vogel, Robert Mannes, 291 Lambert Rd.
1947 White, Robert Morris, 685 Old Grassy Hill Rd.
1971 Zelson, Joseph H., 291 Lambert Rd.

OXFORD 06483

1970 Boissevain, Andre R., 109 Quaker Farms Rd.
1938 Chobian, Joseph Aloysius, 670 Roosevelt Dr.

PROSPECT 06712

1974 DeNicola, Michael, Union City Rd.
1928 Santoro, Grace Marie, P.O. Box 7122
1975 Villa, Alberto, Rt. 69

SEYMOUR 06483

1962 Deduk, Nancy Turner, 17 Westerman Ave.
1962 Deduk, Valentine John, 17 Westerman Ave.
1960 Donnelly, June F., 30 Garden
1970 Harvey, Edward Regis, Jr., 3 DeForest
1934 Rogol, Oscar, 30 Garden

SOUTHBURY 06488

1955 Bernanke, Max, 595A Heritage Village
1937 Craighill, Margaret D., 538B, Cond, #14 Heritage Village
1972 Forbes, J. Dexter, P.O. Box 50
1977 Hamm, Emile Victor, 101 Union Sq. Mall, Main
1975 Harrison, Stanley Leonard, 1036A Heritage Village
1954 Hart, Henry Harper, Oakledge
1927 Jackson, Arthur Hartt, 68A Hill-Place Dr., Heritage Village
1942 Jennes, Milton Leo, 211-A Heritage Village, Southbury 06488
1941 Lee, John Ranks, Heritage Village
1934 McAlenney, Paul Francis, 806B Heritage Village
1971 Mickenberg, Ira D., P.O.Box 446
1959 Raphael, Martha Carola, Main
1976 Rosen, Michael W., Main
1974 Rothstein, David, 912A Heritage Village
1970 Taylor, Marc Jules, P.O. Box 446
1955 VanDerwerker, Earl Edward, Jr., Union Square Prof. Offices
1974 Wheeler, Maynard Cattron, Box 425
1935 Yannet, Herman, 523-B Heritage Village

SOUTH MERIDEN 06450

1955 Klein, Bernard, 244 Main

WALLINGFORD 06492

1973 Arnold, Philip Bruno, Gaylord Hospital
1947 Boyd, Robert Booth, 91 South Main
1949 Breck, Richard William, 26 Fair
1966 Cirmo, William Francis, 50 South Main, P.O.Box 597
1966 Combs, Jerome Thomas, 50 South Main, P.O. Box 728
1942 Ferguson, James Fulton, Jr., 91 South Main
1956 Fraknoi, Joseph, 101 South Main
1967 Gates, William Leonard, 80 South Main
1972 Guzman, Pablo Soriano, Gaylord Hospital
1974 Hofbauer, Henry B., 26 Fair
1975 Kellan, Carl, 50 South Main
1964 Kramer, Bernard, 604 Center
1974 Krc, Eugen,15 South Elm
1974 Manchepalli, Anandarama Setty A., Gaylord Hospital
1947 McGaughey, James David, III, 44 Morningside Ter.
1960 Piccirillo, Anthony Vincent, 50 South Main, P.O. Box 728
1956 Plakins, Harold Gregory, 245 North Main
1960 Rathey, Ulrich Klaus, Masonic Home and Hospital
1953 St. James, Alfred Thomas, 181 North Main
1956 Sawicki, Lucian Alex, 153 South Main
1961 Smith, Delbert Beidler, 50 South Main, P.O. Box 728
1931 Spignesi, John Theodore, 393 Center
1974 Strazek, Leslaw M., 1 Signal Hill Rd.

WATERBURY

1961 Abrahamian, H. Arto, 1389 West Main 06708
1975 Abrams, Raymond M., 82 South Elm 06702
1971 Amatruda, Thomas T. Jr., Waterbury Hospital 06720
1962 Anderson, Duane Roland, 714 Chase Pkwy. 06708
1973 Anthony, Joseph Robert, 56 Franklin 06702
1976 Archer, Girvice W. Jr., 1389 West Main 06708
1954 Audet, Charles Henry, Jr., 3 Second Ave. 06710
1954 Audet, Robert Joseph, 3 Second Ave. 06710
1942 Backhus, Louis Charles, 58 Central Ave. 06702
1974 Baldovi, Victoriano Castillo, Jr., 1389 West Main 06708
1976 Beauchamp, Lawrence Arthur, 89 Willow 06710
1953 Beeble, John, 578 Watertown Ave. 06708
1974 Berg, Gerald, Waterbury Hospital 06720
1960 Bisson, Bertrand Philip, St. Mary's Hospital 06702
1931 Bizzozero, Orpheus Joseph, 134 Grandview Ave. 06708
1968 Bizzozero, O. Joseph, Jr., 134 Grandview Ave. 06708
1950 Blank, Samuel, 951 Chase Pkwy. 06708
1972 Bobowick, Alphonse Roger, 134 Grandview Ave. 06078
1970 Bonaccorsi, Benito Italo, 60 Lakeside Blvd. West 06708
1943 Bonner, Robert Alexander, Jr., 1389 West Main 06708
1972 Brackett, John William, Jr., St. Mary's Hospital 06702
1964 Buckley, Michael Bernard, 1100 Baldwin 06706
1937 Burnham, Bernard Alfred, 324 Highland Ave. 06708
1958 Cappelletti, A. Joseph, 134 Grandview Ave. 06708
1970 Chavez, Aldo Edmundo, 1389 West Main 06708
1962 Cohen, William, 475 Chase Parkway 06708
1942 Coppeto, C. James, 220 East Main 06702
1976 Coppeto, James Robert, 1906 North Main 06704
1942 Coshak, Morris, 58 Holmes Ave. 06710
1928 Cottiero, Thomas, P.O. Box 2246 06720
1947 Cox, Marcus Edward, St. Mary's Hospital 06702
1964 Cutler, Henry Julius, 134 Grandview Ave. 06708
1969 Daly, Joseph Edmund, 1389 West Main 06708
1961 D'Angelo, Daniel A., 636 Plank Rd. 06705
1972 Daniels, Darrell S., 163 Grove 06710
1976 Danielson, Kenneth Sigwald, 1211 West Main 06708
1951 Davie, Robert N., 1211 West Main 06708
1972 de Escobar, Decio Macedo, 29 Central Ave. 06702
1956 Dennen, Philip Cushing, 134 Grandview Ave. 06708
1963 De Petrillo, Bart, 134 Grandview Ave. 06708
1970 Diggs, Andrew Monroe, 106 Grove 06710
1948 DiLorenzo, Salvatore F., 65 Pine 06710
1953 Dingman, Peter Van Cleef, 1211 West Main 06708
1964 Dudzic, Anthony Luke, 1389 West Main 06708

1974 Dunn, Edward, Waterbury Hospital 06720
1972 Dyer, Richard H. Jr., 1211 West Main 06708
1975 Eguia, Jose M., 95 Union 06702
1970 Eisen, Steven L., 1211 West Main 06708
1976 Eriksen, Lance, 714 Chase Pkwy. 06708
1964 Eslami, Mehdi Saghatol, 1389 West Main 06708
1976 Fabian, Richard Louis, 47 Vernon 06708
1967 Favata, John, 1389 West Main 06708
1974 Feldman, Robert Allen, 1211 Main 06708
1972 Ferraro, Robert William, 636 Plank Rd. East 06705
1937 Finkelstein, William, 195 Grove 06710
1975 Finn, James Edward, 1211 West Main 06708
1974 Fischbein, Charles Alan, 1389 West Main 06708
1964 Fisher, William H. Jr., 1211 West Main 06708
1973 Flint, James Foreman, 134 Grandview Ave. 06708
1952 Francis, Henry Lloyd, 53 Central Ave. 06702
1976 Fuller, Leo Gladstone Anthony, St. Mary's Hospital 06702
1959 Gaines, Gail Allyn, 72 Hale 06708
1951 Gedeon, Philip Elias, 301 Highland Ave. 06708
1974 Getnick, Richard Alan, 1211 West Main 06708
1975 Gibney, Raymond A., 82 South Elm 06702
1963 Gilbert, Roger Key, Waterbury Hospital 06720
1975 Glassman, Robert Martin, 1389 West Main 06708
1951 Good, Philip Snowden, 714 Chase Pkwy. 06708
1949 Good, Robert Childers, 714 Chase Pkwy. 06708
1976 Gotay-Rodriguez, Victor M., 47-51 Vernon 06708
1974 Greenberg, Irwin M., Waterbury Hospital 06720
1947 Gualtieri, Michael Vincent, 27 Cooke 06702
1942 Harty, John E., 1389 West Main 06708
1967 Helvie, Henry Eaton, Waterbury Hospital 06720
1930 Herrmann, Albert Edward, 142 Robinwood Rd. 06708
1976 Hersh, Stanley Blair, 1389 West Main 06708
1931 Hetzel, Joseph Linn, 51 Central Ave. 06702
1974 Hoden, Peter David, 134 Grandview Ave. 06708
1967 Hogan, J. Michael, 72 Lakeside Boulevard West 06716
1953 Huber, Herman Crane, Jr., 29 Cliff 06710
1975 Jenusaitis, John Robert, 52 Central Ave. 06702
1956 Karsh, Jamil A., 134 Grandview Ave. 06708
1951 Keet, John Eugene, Southwest Rd. 06708
1966 Keggi, Kristaps Juris, 1211 West Main 06708
1974 Kiley, Richard Joseph, 1389 West Main 06708
1944 Koleshko, Lawrence Jacob, 1022 Bunker Hill Ave. 06708
1971 Kostecki, Richard Joseph, 1211 West Main 06708
1974 Kraus, Paul Aaron, 1211 West Main 06708
1940 LaBrecque, Frederick Charles, 151 Grove 06710
1954 Larkin, Charles Lewis, Jr., 1039 Chase Pkwy. 06708
1974 Lee, Kinson, Waterbury Hospital 06720
1976 Lefkowitz, Seymour, 808 Highland Ave. 06708
1976 Lehman, Robert Michael, 82 South Elm 06702
1945 Lenkowski, William John, 107 West Ridge Dr. 06708
1974 Lesser, Robert L., 1389 West Main 06708
1941 Lewicki, Edward Stanley, 858 North Main 06702
1977 Lowell, David Maurice, Waterbury Hospital 06720
1971 Loyer, Richard Edward, 1211 West Main 06708
1954 Luria, Sidney Bennett, 134 Grandview Ave. 06708
1976 Lutes, Richard A., 1389 West Main 06708
1976 Lyons, Kathleen Hausmann, Waterbury Hospital 06720
1939 Margolius, Norman Calvin, 1 Eastfield Rd. 06708
1975 Mari, Eduardo Guillermo, 60 Linden 06702
1948 Marino, Rocco Serefin, 77 Briarcliff Ave. 06708
1971 Marjani, Massoud A., 134 Grandview Ave. 06708
1968 Mascoli, Nicholas Michael, Jr., 1389 West Main 06708
1969 Matyszewski, Stanley Eugene, 64 Robbins 06708
1941 Mayo, Elliot Russell, 129 Prospect 06702
1943 Meo, Richard Carl, 18 Cliff 06710
1941 Merriman, Henry, 134 Grandview Ave. 06708
1961 Miller, Dwight Frank, St. Mary's Hospital 06702
1973 Mirrer, Eugene, 714 Chase Pkwy. 06708
1947 Monagan, Thomas M., 1389 West Main 06708
1956 Moore, Edwin Jude Thaddeus, 89 Roseland Ave. 06710
1975 Moynahan, Paula Amelia, 150 Bateswood Rd. 06706
1947 Mulligan, Thomas Michael, 26 Fiske 06710
1960 Nanni, Fernando Peter, 150 Prospect 06702
1975 Neibel, Kenneth G., 1389 West Main 06708
1969 Nejame, Franklin Francis, 72 Lakeside Boulevard West 06708
1976 Newman, Richard Joseph, 185 Grove 06710
1966 Nezhad, F. Manouchehr, 134 Grandview Ave. 06708
1959 Nunes, Manuel, 10 Second Ave. 06710
1952 O'Brien, Francis Hefler, 1211 West Main 06708
1948 Olore, Louis, 47 Prospect 06702
1975 Osborn, Dana John, 134 Grandview Ave. 06708
1969 Ostrov, Melvyn R., 475 Chase Pkwy. 06708
1976 Palesty, John, 911 Country Club Rd. 06708
1942 Pasetto, Edo, 1183 Hamilton Ave. 06706
1975 Peterson, Walter Scott, 134 Grandview Ave. 06708
1970 Piscatelli, Robert Louis, St. Mary's Hospital 06702
1975 Posada, Humberto, 95 Union 06702
1975 Poupko, Gary G., 34 Collins 06704
1975 Preston, Nicholas, 134 Grandview Ave. 06708
1974 Querijero, Gerardo Barcenas, 1389 West Main 06780
1968 Quigley, William Frederick, 195 Grove 06702
1974 Ranish, Melvin, 475 Chase Parkway 06708
1964 Reed, David Pardee, 1389 West Main 06708
1941 Reichenbach, Alfred Edelbert, 134 Grandview Ave. 06708
1975 Renda, Joseph L., 134 Grandview Ave. 06708
1939 Reynolds, Joseph Alban, 54 Central Ave. 06702
1974 Richards, Norman R., 335 Meriden Rd. 06705
1971 Robitaille, George A., 56 Franklin 06702
1974 Romero, Roberto Orduna, 450 Meriden Rd. 06705
1974 Rost, Dwight Murray, Waterbury Hospital 06720
1958 Rosenbaum, Haskell M., 1389 West Main 06708
1976 Rosenberg, Barry Steven, 1389 West Main 06708
1976 Rothfeld, Philip M., 951 Chase Pkwy. 06708
1974 Rozycki, Jan S., 67 Central Ave. 06702
1975 Rubenstein, Stephen Robert, 192A Kaynor Dr. 06708
1925 Ruby, Max H., 170 Hillside Ave. 06710
1939 Ruby, Robert J., 170 Hillside Ave. 06710
1975 Ruszkowski, Ronald Joseph, 134 Grandview Ave. 06708
1952 Ryan, Sylvester James, 95 Union 06702
1970 Sangree, Milton Huyett, Jr., Waterbury Hospital 06720
1954 Santopietro, Olindo Oreste, 714 Chase Pkwy. 06708
1975 Savarese, Edgar Cunningham, 714 Chase Pkwy. 06708
1939 Sayers, Daniel O'Connell, 132 Eastfield Rd. 06708
1964 Segall, Edward Marvin, 195 Grove 06710
1975 Seliger, Gustav, 82 South Elm 06702
1974 Shapiro, Michael Mark, 63 Central Ave. 06702
1971 Sharian, Kent Edward, 1389 West Main 06708
1933 Shea, Vincent Timothy, 90 Tower Rd. 06710
1972 Shea, Vincent Timothy, Jr., 95 Union 06702
1960 Shealy, A. Creig, 1039 Chase Parkway 06708
1948 Shearer, John Kennedy, 1211 West Main 06708
1972 Sherman, Joel Avery, 195 Grove 06710
1958 Sirica, Alphonse Eugene, 185 Columbia Blvd. 06710
1965 Sirop, Paul Arthur, 195 Grove 06710
1941 Sklaver, Joseph, 95 North Main 06702
1946 Smith, Jasper Archer, 134 Grandview Ave. 06708
1976 Stahl, Allan Jeffrey, 60 Lakeside Blvd. W. 06708
1955 Standard, John Edward, 1211 West Main 06708
1975 Sterling, Anthony Paul, 636 Plank Rd. 06705
1954 Stocking, Anson Gilbert, 30 West Main 06702
1952 Sturman, Robert Harris, 1211 West Main 06708
1946 Sullivan, Arthur Francis, 493 Willow 06710
1973 Sullivan, Raymond Eugene, 1211 West Main 06708
1964 Summa, John Francis, 134 Grandview Ave. 06708
1975 Taube, Steven Lawrence, 64 Robbins 06708
1975 Teeking, Plaridel Sta. Teresa, 1389 West Main 06708
1947 Teiger, Paul, 1389 West Main 06708
1971 Thornton, George Fred, Waterbury Hospital 06720
1972 Toffler, Robert B., Waterbury Hospital 06720

1960 Tormo, Vicente, 1389 West Main 06708
1966 Traurig, Allen Robert, 1211 West Main 06708
1960 Valentine, George William, 1389 West Main 06708
1958 Veiga, Adriano Seabra, 1389 West Main 06708
1975 Villaluz, Erlinda, Santos, 72 Lakeside Blvd. W. 06708
1974 Villaluz, Jose Reallista, Jr., 54 Central Ave. 06702
1975 Villar, Romulo Loyola, 1389 West Main 06708
1970 Vincitorio, Joseph Alexander, 95 Union 06702
1975 Waldman, Nancy, 134 Grandview Ave. 06708
1942 Wallach, Gert M.K., Dir. of Health, City of Waterbury 06720
1959 Warren, Philip, 1389 West Main 06708
1976 Wasilauskas, Victor P., 175 Grove 06710
1954 Weisberg, Herbert Edward, 63 Central Ave. 06702
1977 Wells, Andrew Curtin, 163 Grove 06710
1966 Wihbey, Joseph George, 134 Grandview Ave. 06708
1975 Winograd, Jeffrey, 82 South Elm 06702
1956 Wohlgemuth, Paul Robert, 1211 West Main 06708
1949 Yavetz, Louis Milton, 134 Grandview Ave. 06708
1975 Youngberg, Arne S., 134 Grandview Ave. 06708
1968 Zucker, Leon, 34 Prospect 06702

WEST HAVEN 06516

1975 Beck, John Edwin, 400 Morgan La.
1958 Brodoff, Murray, 385 Main
1938 Chasnoff, John Arthur, 328 Main
1943 Cozzolino, Eugene Norris, 640 Savin Ave.
1958 Day, Edward John, 609 Savin Ave.
1976 De Jesus, Cesar P. V., Veterans Administration Hospital
1954 deSuto-Nagy, Gyula I., Veterans Administration Hospital
1951 Dzubaty, Michael, 522 Ocean Ave.
1974 Errera, Paul, Chief Psychiatry Service, Veteran's Administration Hospital
1976 Etkin, Thomas Howard, 285 Main
1930 Harris, Benedict Richard, c/o Sound View Specialized Care Center
1971 Hourihane, Mortimer John, 385 Main
1960 Hurowitz, Robert Boyd, 285 Main
1966 Job, Gil Guion, 32 Priscilla Rd. 06515
1972 Kerstein, Morris Daniel, Veterans Administration Hospital
1967 Kinstlinger, Robert, 385 Main
1975 Liebowitz, Meyer, 141 Capt. Thomas Blvd.
1965 Loh, Hsing Cheng, Veterans Administration Hospital
1974 Lyons, William Bernard, Veterans Administration Hospital
1975 Mestal, Rudolph, 178 Elm 06516
1930 Milano, Nicolas Antonio, 271 Elm
1947 Milici, John Joseph, 354 Campbell Ave.
1976 Nocks, James Jay, Veterans Administration Hospital 06516
1962 Rocco, Anthony Rudolf, 415 Main
1955 Tierney, Lawrence Matthew, 246 Elm
1947 Yesner, Raymond, Veterans Administration Hospital

WOLCOTT 06716

1940 Damiani, Rudolph Andrea, Rose Hill
1928 Morrill, Harold Frost, 133 Wolcott Rd.
1957 Rofrano, Douglas Anthony, 30 Beach Rd.
1973 Walshe, Thomas Eric, 509 Wolcott Rd.
1946 Whalley, Evan Joseph, 76 Pratt Lane

WOODBRIDGE 06525

1961 Bradley, Raymond Edgar, Jr., 20 Center View Rd.
1948 Brockway, Dorothy W., Old Mill Rd.
1951 Fuhrmann, Josephine Marie, North Pease Rd.
1941 Godfried, Milton S., 54 South Pease Rd.
1967 Goffinet, Sara Beatty, 17 Deepwood Rd.
1958 Herbordt, W. Alexander, 30 Orchard Rd.
1949 Keller, Florence, 264 Amity Rd.
1971 Kondo, Koretada, 6 Wepawaug Rd.
1952 Lidz, Ruth Wilmanns, Orchard Rd.
1925 Maurer, Lloyd Leslie, Fairgrounds Rd.
1973 Milano, Ann F., 26 Dillon Rd.
1935 Newman, Richard, Old Racebrook Rd.
1947 Root, James Harold, Jr., P.O. Box 3907
1946 Taffel, Max, Seymour Rd.
1954 Treder, Frederick Henry, Center Rd.

WOODMONT 06465

1976 Fugal, Jan Peter, 1556 New Haven Ave.
1912 Goldman, George, 195 Kings Highway

YALESVILLE 06494

1954 Dickinson, William Wells, 63 Hill Ave.

OUT OF COUNTY

1957 Anderson, Harold Clifford, Syntex Corp., 3401 Hillview Ave., Palo Alto, California 94304
1961 Atoynatan, H. Tanash, 317 North Main, Manchester 06043
1961 Bensch, Klaus G., Stanford Un. School Med., Stanford, California 94305
1961 Benton, Philip Eglin, Box 241, Barley Neck Rd., Orleans, Massachusetts 02653
1939 Bishop, Courtney Craig, Gilfeather Farm, Wardsboro, Vermont 05355
1970 Blain, Claude Andre, 8901 S. Vista Ct., La Crosse, Wisconsin 54601
1927 Blodinger, Israel Edward, 2121 N. Ocean Blvd., Boca Raton, Florida 33432
1965 Bohan, Gunar N., Dekalb Cty. Health Dept., Decatur, Georgia 30033
1952 Bondy, Philip Kramer, The Royal Marsden Hosp., London SW3, England
1956 Bradley, William Richards, One American Row, Hartford 06115
1961 Brigham, John Charles, 17 Johnson Ave., Hudson, Massachusetts 01749
1958 Cary, James Martin, 181 East Cedar, Newington 06111
1946 Clarke, Winthrop Irving, 141 Sea Isle Circle, South Daytona, Florida 32019
1935 Collins, Joseph Osborn, 326 Woodbury Rd., Watertown 06795
1943 Curtis, William Boyd, 108 N. Gordon Rd., Fort Lauderdale, Florida 33301
1956 Czarsty, Joseph Charles, 314 Main, Oakville 06779
1939 Davis, Jachin Boaz, #A-1, Quail Hollow Apts., West Columbia, South Carolina 29169
1948 Devenis, Michael M., 303 California Ave., Santa Monica, California 90403
1960 Fanslow, Allen Woodward, 31 Bridgeview Pl., Stratford 06497
1953 Fierman, Louis B., 25 Marlborough, Portland 06480
1926 Fitzpatrick, Edward Earl, 317 36th Ave., N. E., St. Petersburg, Florida 33704
1927 Foster, John Hess, Riverview Manor, UMH, Lewisburg, Pennsylvania 17837
1946 Giddings, James Curtis, 7 Pirates Rd., New Bern, North Carolina 28560
1976 Goubran, Michael, 942 College, Oxford, North Carolina 27565
1966 Hellman, Samuel, Joint Center for Radiation Therapy, Boston, Mass. 02115
1930 Higgins, Joseph John, 1365 Enfield, Enfield 06082
1966 Hook, Robert, Institute of Living, Hartford 06106
1946 Howard, Weaver Oscar, 195 Parkview Ter., East Orange, New Jersey 07050

1971 Hurst, Victor Waldemar, III, Shag Bark La., Woodbury 06798
1955 Jaeger, Carl Alphonse, 4 Dearfield Dr., Greenwich 06832
1976 Jilani, Ghulam, 49 DeForest, Watertown 06795
1975 Klingler, Stephen York, 12 Knoll Rd., Woodbury 06798
1936 Klumpp, Theodore George, 90 Park Ave., New York, N. Y. 10016
1946 Kunkel, Paul, 30 Hospital Ave., Danbury 06810
1971 Langner, Joseph Morton, 201 Main, Southington 06489
1915 Lear, Maxwell, 2840 South County Rd., Palm Beach, Florida 33480
1943 Lencz, Erwin D., 1500 Bay Rd., Miami Beach, Florida 33139
1955 Licht, Sidney, 4601 Univ. Dr., Coral Gables, Florida 33146
1972 Manes, Peter Rolf, 1113 Walker Dr., Kinston, North Carolina 28501
1976 Maningas, Antonia Lorenzo, 60 Valley View, So. Windsor 06074
1963 Marsh, Catherine Ohlandt, 181 Westmont, West Hartford 06117
1962 Marsh, Spinks Hamilton, 85 Jefferson, Hartford 06106
1955 Martin, Waldo Emerson, 507A Iroquois La., Stratford 06497
1934 Mekrut, Joseph Anthony, 1506 Danbury Dr., Sun City Center, Florida 33570
1973 Milano, Madelyn Frances, 19 Hurd Bridge Rd., Clinton 06413
1958 Mooney, James Patrick, Philips Medical Systems, Inc., Shelton 06484
1960 Morrissey, Vincent J., 6 Bluewater La., Westport 06880
1964 Mulhern, Patrick Henry, 1310 South Ocean Dr., Fort Lauderdale, Florida 33316
1958 Opsahl, Jeanette C., Sheraton Plaza, Boston, Mass. 02116
1921 Otis, Fessendon Newport, 21 Guernsey Rd., Bloomfield 06002
1968 Ozenberger, James Milton, Boston Post Rd., (18 West Main) Clinton 06413
1971 Palm, Carlton Robert, 30 Peck Rd., Torrington 06790
1971 Pardi, M. T., Via XXV Luglio #19, Lido di Camaiore (Prov) Lucca, Italy
1968 Pascale, Jane Fay, 108 Chasewood Lane, East Amherst, New York 14051
1946 Pasternak, Maxwell, 2425 Gulf of Mexico Dr., Sarasota, Florida 33577
1972 Paust, Joan Carol, 10312 Timberwood Circle, Louisville, Kentucky 40223
1940 Pelz, Kurt S., 16 Sol's Point Rd., Clinton 06413
1955 Pilot, Martin Lewis, 518 Riverside Ave., Westport 06880
1952 Pious, William Leon, 715 San Jaun, Clewiston, Fla. 33440
1973 Riemer, Hans Otto, Laurel Heights Hospital, Shelton 06484
1960 Rinaudo, Peter A., 59 Skyview Dr., Berlin 06037
1949 Riordan, William Darling, 40 Braeburn Rd., West Hartford 06117
1966 Roach, Donald Patrick, 408 Howe Ave., Shelton 06484
1931 Sandulli, Gaetano Renato, 212 Middlebury Rd., Watertown 06795
1951 Spencer, Leon O., 410 42nd Ave. North, Myrtle Beach, South Carolina 09577
1976 Stanton, Robert Alan, 50 Ridgefield Ave., Bridgeport 06610
1924 Stettbacher, Henry John, 906 Locust, Cambridge, Maryland 21613
1923 Sullivan, Thomas Joseph, 2500 S. Ocean Blvd., Boca Raton, Florida 33432
1976 Taylor, Richard Norvell, Jr., 70 Heminway Park Rd., Watertown 06795
1954 Vileisis, Vita, Ben Sherman Hill, Woodbury 06798
1974 Zilveti, Carlos B., Regional Med. Office, Embassy of the USA APO New York 09155
1933 Zimmerman, Harry Martin, Montefiore Hospital, Bronx, New York 10467

New London County Association

President: Charles M. Krinsky, 27 Broad, New London 06320
President Elect: Fred A. Anderson, 7 Clinic Dr., Norwich 06360
Vice-President: Jerome Bobruff, 268 Montauk Ave., New London 06320
Secretary-Treasurer: Kathryn E. Verie, 159 Ocean Ave., New London 06320
Councilor: Charles M. Krinsky, 27 Broad, New London 06320
Associate Councilor: Frederick C. Barrett, 108 New London Tpke., Norwich 06360
Annual Meeting, First Thursday in April
Semi-Annual Meeting, First Thursday in October

COLCHESTER 06415

1971 Bender, Louis, 21 Norwich Ave.
1956 Conrad, Carl Casper, 24 Norwich Ave.

GALES FERRY 06335

1971 Engelke, Harold August, Medical Arts Building, R.F.D. No. 12
1974 Long, Dennis Sage, R.F.D. 3, Box 309
1977 Rinzler, David Michael, Rt. 12 Torrey Park

GRISWOLD

Jewett City 06351

1956 Gosselin, Albert George, 65 Brown Ave.

GROTON

1975 Barri, Anthony R., 317 Long Hill Rd. 06340
1955 Brown, Walter McKeand, 295 Long Hill Rd. 06340
1953 Force, Berwyn Rodney, 272 Thames 06343
1975 Heller, Stephen Frederick, 167 Broad 06340
1970 Hollister, James Malcolm, 167 Broad 06340
1969 Knirsch, Anthony K., Pfizer Inc.
1946 MacDougall, A. Duncan, 174 Bridge 06343
1977 O'Brien, Mark M., 59 Atlantic 06340
1961 Soriano, Ernesto Reyes, 1064 Poquonnock Rd. 06340
1944 Sutton, Paul, 174 Bridge 06340

HADLYME 06439

1933 Wilson, George Campbell, Box 98

EAST LYME 06333

1970 Edgar, Edward E., Black Oak Dr.
1977 Shaw, Gerald Lee, 23 Church Lane

LEDYARD 06339

1977 Gates, Peter Joseph, 20 Marla Ave.

LYME 06371

1927 Ely, Julian Griffin, R.F.D. No. 2
1975 Stanberry, MarkChauncy, Joshua Lane, RFD 2

MYSTIC 06355

1967 Barry, Richard M., Sandy Hollow Rd.
1974 Brensilver, Howard L., Sandy Hollow Rd.
1950 Edmonstone, William Mason, 102 Library
1976 Freye, Henry B., 46 Greenmanville Ave.
1961 Graham, Roger A., 761 River Rd.
1975 Plankeel, John P., 3 Prospect
1975 Pukay, Boris, 21 East Main
1973 Schmidt, James Lee, Box 38
1968 Sproul, Lyman Edwin, Sandy Hollow Rd.

NIANTIC 06357

1975 Barrera, Alberto M., 5D Churchwood
1972 Glasser, Samuel Thomas, 4 Columbus Ave.

1951 Hall, Mary Nettleton, 88 Smith
1954 Kramm, William Amede, Hope
1976 Palker, Neil A., 16 Laurel Hill Dr., So.
1972 Young, Daniel David, 22 Pennsylvania Ave.

NEW LONDON 06320

1970 Adams, Gene Roger, 276 Montauk Ave.
1956 Beatman, Bernard, 34 Channing
1957 Bedrick, Morton, 345 Montauk Ave.
1976 Benton, Richard Philip, 150 Ocean Ave.
1963 Bobruff, Jerome, 268 Montauk Ave.
1971 Brown, Henry, 350 Montauk Ave.
1969 Burton, George, 488 Montauk Ave.
1960 Cavicke, David Conrad, 350 Montauk Ave.
1974 Chheda, Jyotsna, R., Lawrence & Memorial Hospitals
1970 Clayton, Edwin Martin, Lawrence & Memorial Hospitals
1977 Colom, William Anthony, 447 Montauk Ave.
1961 Cooper, Donald Wesley, 350 Montauk Ave.
1958 Coulson, Louis Anthony, 425 Montauk Ave.
1972 Derby, James Hart, 41 Faire Harbour Pl.
1949 Dey, Frederick Lemuel, 464 Ocean Ave.
1974 Dickson, Harrison McCrea, U.S. Coast Guard Academy Hospital
1931 Dyer, Charles Edward, 297 Montauk Ave.
1954 Dyer, Charles Frederick, 327 Montauk Ave.
1948 Ellison, Malcolm Mitchell, 328 Montauk Ave.
1947 Fagan, Frederick J., 19 Glenwood Ave.
1964 Fleisher, Paul Robert, 435 Montauk Ave.
1965 Foss, Beverly Ann, 325 Montauk Ave.
1977 Fraser, Richard A., 350 Montauk Ave.
1958 Fulchiero, Egidio, Lawrence & Memorial Hospitals
1966 Gaito, Raymond Arthur, 464 Ocean Ave.
1954 Gerity, Paul Joseph, 465 Montauk Ave.
1971 German, John Nixon, 350 Montauk Ave.
1934 Gipstein, Edward, 181 Broad
1947 Haines, Henry Lippincott, 464 Ocean
1939 Hartman, Frederick Brittinger, 342 Montauk Ave.
1958 Hayes, David, Lawrence & Memorial Hospitals
1934 Henkle, Robert Theodore, 132 Ocean Ave.
1965 Hostnik, William John, 280 Montauk Ave.
1974 Immordino, Peter Anthony, 154 Broad
1966 Johnson, Howard King, Jr., 488 Montauk Ave.
1966 Johnson, Mary Ellen, 488 Montauk Ave.
1956 Jones, William Nicholas, 41 Faire Harbour Pl.
1974 Jung, Robert Marc, 41 Faire Harbour Pl.
1961 Kaplan, Donald H., 345 Montauk Ave.
1962 Karno, Martin Louis, 270 Montauk Ave.
1972 Kim, C. Albert, Lawrence & Memorial Hospitals
1972 Klimek, Robert J., 154 Broad
1940 Krinsky, Charles Morris, 27 Broad
1958 Kuhn, Herbert Ray, 425 Montauk Ave.
1975 Kwee, Hing Sin, Lawrence & Memorial Hospitals
1962 Leib, Dorothy Baird, 429 Montauk Ave.
1962 Leib, Gilbert Middleton Patten, 447 Montauk Ave.
1953 Lena, Hugh F. Jr., 154 Broad
1947 Loiacono, Richard A., 464 Ocean Ave.
1953 Longo, Vincent Joseph, 437 Montauk Ave.
1936 Lubchansky, Jacob Harris, 27 Broad
1976 Madsen, John E. Jr., 268 Montauk Ave.
1976 Makover, Richard, 342 Montauk Ave.
1970 Marchand, Gilles Alfred, 425 Montauk Ave.
1957 Mariani, Roland A., 280 Montauk Ave.
1968 Marshall, David Charles, 154 Broad
1964 Marx, Frank George, 425 Montauk Ave.
1949 McFarland, Ward John, 833 Ocean Ave.
1976 McKeehan, Frederick Romer, Conn. College
1968 Moalli, Daniel Edward, 350 Montauk Ave.
1964 Molloy, Peter Myers, Lawrence & Memorial Hospitals
1966 Morse, Willard Jackson, Jr., 391 Ocean Ave.
1974 Murphy, Arthur Gordon, Connecticut College
1952 Murray, Joseph Thomas, 342 Montauk Ave.
1953 Murray, William John, Jr., 447 Montauk Ave.
1946 Nielsen, Tage M., 159 Ocean Ave.
1951 Olsen, Robert Clarence, 496 Montauk Ave.
1973 Pascual, Rafael S., 391 Ocean Ave.
1976 Pembrook, Richard Charles, 464 Ocean Ave.
1963 Peterson, David M., 342 Montauk Ave.
1955 Prokesch, Clemens Elias, 435 Montauk Ave.
1976 Reilly, John Joseph, 154 Broad
1968 Robinson, Charles H. Jr., 276 Montauk Ave.
1974 Roe, Charles Francis, 467 Montauk Ave.
1975 Rosenblum, Robert Alan, 345 Montauk Ave.
1952 Saxe, Louis Philip, 341 Montauk Ave.
1973 Schmidt, C. William, 350 Montauk Ave.
1960 Scholz, Horst Dieter, Lawrence & Memorial Hospitals
1975 Silver, Stephen Euric, 271 Montauk Ave.
1949 Spitz, Hilliard, 447 Montauk Ave.
1971 Sprafke, Donald Francis, 41 Faire Harbour Pl.
1965 Sprecace, George Alcide, 248 Montauk Ave.
1974 Stein, Sigmund Charles, 276 Montauk Ave.
1940 Sulman, Morris, 203 Montauk Ave.
1974 Sutphen, John Hayes, Lawrence & Memorial Hospitals
1933 Taylor, Robert Nelson, 159 State
1963 Tighe, John Anthony, 419 Montauk Ave.
1951 van Dyk, Arnulf R., 50 Granite
1947 Verie, Kathryn E., 159 Ocean Ave.
1960 Wade, Philip Barry, 275 Montauk Ave.
1950 Warnshuis, Lilian Cook, 25 Thames
1935 Wies, Carl Hendricks, 115 Huntington
1951 Wood, Dwight Reynolds, 358 Montauk Ave.
1947 Wool, Joseph M., 271 Montauk Ave.
1972 Yoselevsky, Melvin Arnold, 334 Montauk Ave.

NOANK 06340

1974 Andrews, William Baird, 107 Seneca Dr.

NORWICH 06360

1974 Ahamed, Sultan, 57 Lafayette
1946 Albamonti, Mario John, 6 Clinic Dr.
1950 Allen, Joseph Eugene, 11 Woodrow Ave.
1950 Anderson, Fred Andrew, 7 Clinic Dr.
1950 Anderson, Ruth Messer, 15 Butternut Dr.
1967 Andrews, Ralph Colvin, 16 Franklin
1933 Archambault, Henry Allard, 120 Lafayette
1959 Balfour, James Douglas, William W. Backus Hospital
1950 Barrett, Frederick Charles, 108 New London Tpke.
1969 Bergendahl, Gilbert Thomas, 120 Lafayette
1935 Bergendahl, Harold Andrew, 120 Lafayette
1973 Betten, Michael Gerald, 12 Case
1942 Bielecki, Casimer Eugene, 120 Lafayette
1962 Browning, S. Pearce, III, 5 Case
1959 Carter, Frank James, 120 Lafayette
1959 Carter, Marie Kernan, 185 Broadway
1965 Coletti, Larry, 108 New London Tpke.
1964 Cook, Thomas Jackson, 57 Lafayette
1960 Costa, Pasquale James, 108 New London Tpke.
1966 Cranston, Robert W. Jr., 43 Ox Hill Rd.
1974 de Groot, Theodore J., 53 Lafayette
1942 Drobnes, Sidney, 24 Sachem
1956 Eadie, Frederick Stearns, 120 Lafayette
1969 Edgar, Malcolm S. Jr., 2 Clinic Dr.
1975 Esfahanian, Sa-id, 326 Washington
1976 Friedman, Franklin Paul, 12 Case
1974 Gilmartin, Daniel, William W. Backus Hospital
1958 Glenney, Christopher Courtney, 2 Clinic Dr.
1975 Goldblatt, Jeffrey Stuart, 121 Lafayette
1966 Greene, Leonard Albert, 120 Lafayette
1962 Griffin, J. Clement, 12 Case
1948 Guss, Louis, 59 Sachem
1935 Higgins, Harold William, 7 Clinic Dr.
1962 Joseph, Julien L., Scotland Rd., R.F.D.

1971 Kadish, Joan Alice, William Backus Hospital
1971 Kadish, Manuel Edgar, Brown School Rd., R.F.D. No. 3
1960 Kalams, Zannis Spiros, 12 Case
1974 Kantharaj, Adisayam Joseph, 80 Sherman
1947 Katz, Morris E., 108 New London Tpke.
1954 Kelleher, James H., 100 Fanning Ave.
1946 Kelley, Winfield Orthello, 11 Butternut Dr.
1967 Kerrigan, Robert, 87 Lafayette
1962 Kropp, Peter Johann, 24 Sachem
1966 Langhammer, Hans, Norwich State Hospital
1947 LaPierre, Arnaud Rogers, 5 Clinic Dr.
1949 LaPierre, Warren Winthrop, 5 Clinic Dr.
1974 Lee, Woong B., 57 Lafayette
1974 Lesnik, Thomas H., 119 Lafayette
1950 Lord, Benjamin John, Jr., 120 Lafayette
1936 Mahoney, Joseph John, 120 Lafayette
1975 Mandell, Harvey N., William Backus Hospital
1954 Manning, Imogene Hopkins, 120 Lafayette
1947 Martin, John Edward, Clinic Dr.
1967 Martin, Morgan Graham, P.O. Box 508
1955 Masterson, Thomas Joseph, 2 Clinic Dr.
1967 McKeon, William Francis, 148 Sachem
1977 McNamara, Thomas Clinton, 148 Sachem
1952 Milone, Joseph E., 16 Franklin
1951 Morrison, John Edward, 11 Lincoln Ave.
1976 Oakley, David Edward, 12 Case
1935 O'Connell, Patrick Henry, 10 Shetucket
1959 O'Toole, Peader, P.O. Box 508
1968 Parthenis, Alexander, Box 508
1947 Phillips, Nicholas T., 12 Case
1973 Powell, Bernardo, Norwich State Hospital
1972 Prioli, Katherine M., 92 New London Tpke.
1934 Quintiliani, Albert, 58 Broadway
1976 Richeimer, William George, 2 Clinic Dr.
1973 Rosenberg, Peter J., 159 Sachem
1948 Santiccioli, Aldo Bruno, 1-5 Sheraton Lane
1964 Saracino, Luigi, Norwich Hospital
1954 Sawyer, James David, 12 Case
1942 Schwarz, H. Peter, 120 Lafayette
1968 Sculco, Mario, 120 Lafayette
1935 Sears, Lewis, 257 Main
1938 Segel, Solam, 159 Sachem
1976 Snyder, Ronald Eugene, 92 New London Tpke.
1968 Solomon, Morton, Town at Washington
1966 Songco, Mariano, F., 16 Franklin
1974 Springer, Gerald L., 326 Washington
1929 Suplicki, John William, 257 Main
1968 Taylor, K. Stephens, 57 Lafayette
1963 Torres, Clemencio Bautista, 108 New London Tpke.
1963 Tramontozzi, Anthony Daniel, 108 New London Tpke.
1976 Wahba, Hany Said, 12 Case
1955 Ward, Franklyn Pennington, 117 Lafayette
1976 Watson, James Earl, 159 Sachem
1932 Wener, William Victor, 287 Harland Rd.
1953 Wilson, Clifford Edward, 12 Case

NORWICHTOWN 06360

1954 Harkins, James Anthony, 98 Case

OLD LYME 06371

1971 Borger, Allen Paul, Old Cart Path
1963 Brubaker, Robert Erb, R.D. #3
1963 Dorantes, Joaquin, Saunders Hollow
1962 Friedmann, Karl R., Boston Post Rd.
1973 Griswold, Matthew, P.O. Box 206
1967 Hackbarth, Clifford James, Boston Post Rd.
1977 Solin, Michael Edward, Boston Post Rd.

QUAKER HILL 06375

1970 Rablen, Elizabeth Charlotte, 40 Old Norwich Rd.
1929 Starr, Richard Mallory, 7 Best View Rd.

SALEM 06415

1974 Bingham, David Brewster, White Birch Rd.

STONINGTON 06378

1975 Pitts, Norman E., R.F.D. #1, Box 69-D
1975 West, Edmund Anthony P., Box 266

TAFTVILLE 06380

1949 Rousseau, David George, 4 North Second Ave.

UNCASVILLE 06382

1949 Mi[illegible]tis, Frank Joseph, 221 Norwich-New London Tpke.
1929 Rasmussen, Hans Norman, 92 Depot Rd.

WATERFORD 06385

1962 Behringer, Frederick Rudolph, 14 Susan Ter.
1965 Ellis, Grace Davis, 214 Niantic River Rd.
1936 Ferguson, Helen Knox, 172 Niantic River Rd.
1963 Palmer, Walter M., 8 Leary Dr.
1967 Rabinovitch, Peter I., 210 Boston Post Rd.
1976 Raphan, Harvey, 4 Jonathan Law Ct.
1974 Srinivas, Ratna Ragunath, 53 Colonial Dr.

OUT OF COUNTY

1972 Aromin, Salvador C., 24 Prospect, Moosup 06354
1951 Birchall, Ellen Frances, 1103 Holcomb, Watertown, New York 13601
1962 Corazzelli, Frank George, Jr., 60 Canterbury Lane, Trumbull 06611
1966 Cuello, Rafael A., Bridgeport Hospital, Bridgeport 06610
1941 Fowler, Roger N., 205 Heather La., Ramsey, New Jersey 07446
1968 Gilgore, Sheldon G., 9 Rockwell Lane, Darien 06820
1935 Hale, Virginia Anne, Bay Village, 8400 Jamo Rd. Sarasota, Florida 33581
1968 Harrison, Milton, 145 Pago Pago Dr., Naples, Florida 33940
1936 Irwin, Harold Hyman, 1402 N. W. 80th Ave., Margate, Florida 33063
1972 Jones, E. Arnold, Wildwood Medical Specialists, Essex 06426
1975 Lamb, Elizabeth S., 96 Norwood Rd., West Hartford 06117
1928 Mills, Bernard, Litchfield, Hawthornden State Hospital, Northfield, Ohio 44067
1937 Moore, Maurice R., P.O. Box 3046, Spring Hill, Florida 33512
1934 Morse, Willard Jackson, 452 Lighthouse Way, Box 306, Sanibel, Florida 33957
1961 Nelligan, David Joseph, Magna La., Westbrook 06498
1962 Olejnik, Waclaw, P.O. Box 351, Middletown 06457
1921 Sussler, David, 2560 S. Ocean Blvd., Palm Beach, Florida 33480
1965 Wierzbinski, Joseph Paul, 517 Laurel Ave., Menlo Park, California 94025

Tolland County Association

President: Allyn B. Dambeck, 111 Hartford Tpke., Tolland 06084
Vice-President: Marion A. Warpinski, Rt. 198, Woodstock Valley 06282
Secretary-Treasurer: Marjorie A. Purnell, 23 Davis Ave., Rockville 06066
Councilor: Victor G. Sonnen, 59 Broad Brook Rd., Enfield 06082
Associate Councilor: Norman A. Zlotsky, 23 Elm, Rockville 06066

Annual Meeting, Third Tuesday in March
Semi-Annual Meeting, Third Tuesday in October

ROCKVILLE 06066

1971 Abbott, Howard, 57 Union
1968 Adamo, Benjamin, 57 Union
1974 Arrieta, Edna Jovita M., Rockville General Hospital
1964 Atkins, Michael Patrick, 57 Union
1971 Brooks, Neil Hurst, 1 Ellington Ave.
1933 Burke, Francis Henry, 45 Park
1977 Conway, Michael Mead, 57 Union
1974 Cook, Robert Stanley, Jr., 57 Union
1973 DiMeola, Herbert Joseph, 57 Union
1971 Haber, Melvin, Rockville General Hospital
1976 Johnson, Douglas Emil, 57 Union
1955 Josephson, Neil David, Rockville General Hospital
1955 Kristan, Joseph John, 57 Union
1970 Kriz, John Joseph, Rockville General Hospital
1950 Kummer, Seymour Isaac, 1 Ellington Ave.
1976 Lahman, Jerome Edward, 57 Union
1952 Purnell, Marjorie Axford, 23 Davis Ave.
1954 Purnell, Oliver James, 57 Union
1974 Reyes, Claireman Siazon, Rockville General Hospital
1931 Schneider, William, 72 Orchard
1972 Schwartz, Gerald Lee, 57 Union
1966 Sharon, Michael Reinhardt, 23 Elm

SOMERS 06071

1941 Cullen, James Rescott, Hall Hill Rd.
1965 Maier, Robert Fritz, Main
1974 Whelan, John Joseph, 39 Hampden Rd.

STAFFORD SPRINGS 06076

1960 Amanti, Joseph Anthony, 89 East Main
1974 Chirot, Michel, Johnson Memorial Hospital
1964 DeTora, Albert M., 53 East Main
1976 Jou, Leo J. C., Med. Ctr., Chestnut Hill Rd.
1974 Rodriguez, Josefina C., Star Rt., Box 5, 97 East
1975 Sawyer, C. Evans, Johnson Memorial Hospital
1976 Sindwani, Desh R., Med. Ctr., Chestnut Hill Rd.
1976 Tumminello, Vincent Joseph, Med. Ctr., Rt. 190
1977 Villa, Arturo Del Pilar, Johnson Memorial Hospital

TOLLAND 06084

1958 Dambeck, Allyn Benard, 111 Hartford Tpke.
1974 Dhandapani, Balasubramaniam, 113 Hartford Tpke., Tolland Prof. Bldg.
1969 Hunt, Malcolm L., 59 Crestwood Rd.

VERNON 06066

1975 Haight, Barry W., 351 Merline Rd.
1969 Marmer, Ellen Lucille, 351 Merline Rd., P.O. Box 2340
1976 Nissanka, Manage D. S., Vernon Prof. Bldg.
1970 O'Connell, Charles George, Box 2278
1969 Shapiro, Harold O., 351 Merline Rd., P.O. Box 2340

OUT OF COUNTY

1976 Ghazi-Saidi, Reza, Fox Hill Lane #62, Enfield 06082
1957 Magauran, Brendan Gerard, 199 Maple, Enfield 06082
1975 Silverbach, Spencer, 177 Elm, Enfield 06082
1955 Sonnen, Victor Gerald, 59 Broad Brook Rd., Enfield 06082
1974 Taylor, Thomas Joseph, 2 White Oak Rd., Woodbury 06798
1949 Thayer, R. Bruce, Jr., 221 Whitney Ave., New Haven 06509
1974 Warpinski, Marion A., Rt. 198, Woodstock Valley 06282

Windham County Association

President: ROMAIN P. GOYETTE, 330 Pomfret Putnam 06260
Vice-President: DONALD B. GLUGOVER, 70 Mansfield Ave., Willimantic 06226
Secretart-Treasurer: ALBERT T. LOJKO, 255 Pomfret, Putnam 06260
Councilor: WILLIAM A. WHALEN, 150 Mansfield Ave., Willimantic 06226
Associate Councilor: CHARLES J. MIDDLETON, 39 Broad, Danielson 06239
Annual Meeting, Third Thursday in March
Semi-Annual Meeting, Third Thursday in October

ABINGTON 06230

1948 Valentine, Bruce, Eliza F. Clark Memorial Center

CANTERBURY 06331

1976 Galasyn, Valentine David, Buck Hill Rd.

DANIELSON 06239

1935 Chartier, Gerard Marcel, 39 Broad
1968 Harton, Maurice R., 81 Broad
1977 Israel, Daniel, 1 Carter
1949 Jones, James Franklyn, 39 Broad
1973 Khoury, Alexis E., 11 Spring
1974 Middleton, Charles J., 39 Broad
1962 Raheb, Edmond B., 14 Carter
1957 Robinson, Lavius Arad, Jr., 9 Hutchins
1949 Weigel, Stanley Joseph, 53½ Broad

EAST WOODSTOCK 06244

1965 Klare, Rudolph Emil, Route 169

HAMPTON 06247

1974 Larkin, John Thomas, Sand Hill Rd.
1959 Sornberger, Charles Franklin, R.F.D.
1974 Woodworth, John A., North Bigelow Rd.

MOOSUP 06354

1948 Barry, E. Arthur, Jr., 1 Maple

NORTH GROSVENORDALE 06255

1976 Chen, Fusen Houston, Thompson Med. Ctr.
1970 Dufort, Robert Thomas, Thompson Med. Ctr., R.D. No. 1
1963 Park, Sowhey, R.R. No. 1

POMFRET 06258

1953 Eaton, Harry E., P.O. Box 238

POMFRET CENTER 06259

1975 Malter, Ira J., RD #1, Box 88

PUTNAM 06260

1976 Ahola, Saul Joseph, 263 Pomfret
1942 Bates, David Hinrichs, Hotel Putnam
1969 Bouthillier, Joseph E., R.D. 2, Pomfret Rd.
1963 Canty, William Patrick, 320 Pomfret
1974 Chung, Eui Kyun, R.F.D. #1, Pomfret Rd.
1975 Curran, Edward Allan, 320 Pomfret
1970 Diaz, Arturo, Day Kimball Hospital
1963 Goyette, Romain Philip, 330 Pomfret
1974 Heweston, John Buchan, Day Kimball Hospital
1971 Hochberg, David Thomas, 320 Pomfret
1973 Hogan, Austin Francis, 320 Pomfret
1975 Lojko, Albert Thomas, 255 Pomfret
1941 Margolick, Moses, 23 Providence

1976 McLanahan, Sandra Martin, 245 School
1959 Meyer, John Louis, Day Kimball Hospital
1969 Painter, Robert Lowell, 330 Pomfret
1975 Paulhus, John Joseph, Day Kimball Hospital
1930 Prosser, Florence Dean, P.O. Box 642
1934 Shepard, William Mac, 64 Grove
1977 Wreschner, Charles Louis, 330 Pomfret

THOMPSON 06277

1952 Waldron, Sherman Lester, R.R. 1, Box 2

WILLIMANTIC 06226

1967 Amdur, Millard Jason, Beech Mountain Rd., R.F.D. No. 3
1935 Arnold, Morton, 132 Mansfield Ave.
1950 Beardsley, Frederick Armour, 132 Mansfield Ave.
1966 Becker, George Edward, 150 Mansfield Ave.
1976 Berry, Guy Neill, Box 116
1962 Bird, Frank Luther, 132 Mansfield Ave.
1956 Bolt, Ernest Albert, Jr., 132 Mansfield Ave.
1970 Bopp, Raymond Karl, 150 Mansfield Ave.
1972 Browne, Edward Randolph, Windham Community Memorial Hospital
1969 Calise, Peter Joseph, Windham Community Memorial Hospital
1964 Dodd, Anne H., 86 Puddin La., R.D. #3
1961 Dodd, Samuel Garland, Windham Community Memorial Hospital
1966 Doyle, Fred Wendell, Windham Community Memorial Hospital
1976 Duers, John Allen, 196 Conantville Rd.
1974 Ehrlich, Marvin Cye, 70 Mansfield Ave.
1972 Ellzey, William Joseph, 14 Quarry
1973 Flynn, J. Dennis, R.R. 3, 61 Beech Mt. Rd.
1975 Friedman, Robert M., 196 Conantville Rd.
1969 Gibson, Luther White, 132 Mansfield Ave.
1968 Gillcash, Robert S., 36 Watson at Memorial Park
1965 Glasser, Morton, 99 Mansfield Ave.
1968 Glugover, Donald Benjamin, 70 Mansfield Ave.
1947 Grillo, William, 393 Prospect
1973 Griswold, Douglas Marsh, 150 Mansfield Ave.
1974 Hale, Stanton D., 150 Mansfield Ave.
1977 Hayes, John Raymond, 132 Mansfield Ave.
1958 Herbert, Earle Avery, Windham Community Memorial Hospital
1975 Komnimos, Anthony, 132 Mansfield Ave.
1970 Lawrence, Gerard James, 150 Mansfield Ave.
1975 Lindquist, Carl Warren, 47 Tingley
1940 Little, Mervyn Henry, 196 Conantville Rd., R.F.D. #3
1940 Little, Olga A. G., 196 Conantville Rd., R.F.D. #3
1948 Major, James W., 150 Mansfield Ave.
1975 Melton, Alan R., 74 Sawmill Brook La.
1973 Moskowitz, Robert Irwin, 70 Mansfield Ave.
1964 Nepomuceno, Maria Nelly, 132 Mansfield Ave.
1971 O'Brien, Gerald John, Windham Community Memorial Hospital
1977 Okstein, Charles Jay, 6 Storrs Rd.
1975 Onglingswan, William Tiu, 43 Tingley
1967 Peterson, Carl Gregory, Jr., 150 Mansfield Ave.
1956 Rosenberg, Murray Zale, Windham Community Memorial Hospital
1977 Rosenberg, Paul E., 196 Conantville Rd., R.F.D. #3
1937 Rothblatt, Reuben, 43 Tingley
1958 Sandler, Gerald, 132 Mansfield Ave.
1963 Sandler, Melvin James, 132 Mansfield Ave.
1958 Sikand, Sage Datt, 70 Mansfield Ave.
1929 Spector, Nathan, 59 Church
1935 Vernon, Sidney, 185 Birch
1959 Whalen, William Anthony, Jr., 150 Mansfield Ave.

OUT OF COUNTY

1939 Basden, Edwin Herbert, Rt. 87, Columbia 06237
1973 Blaney, Lamson, Box 154, Mansfield Center 06250
1954 Bowen, Robert Philip, High, Coventry 06238
1942 Freeman, John Jay, 18 Hillside Circle Storrs 06268
1932 Gilman, Ralph Lawrence, Dog Lane, Storrs 06268
1971 Haney, John F. B., 667 Chaffeeville Rd., Storrs 06268
1953 Kennedy, George Lloyd, 5 Maple, Jewett City 06351
1975 Kirkpatrick, J. Raoul, Institute of Living, Hartford 06106
1952 LeRoy, John Baptiste, Williston Hill Rd., R #1 West Willington 06279
1970 Loeser, Lucille Kelley, Farmstead Rd., Storrs 06268
1947 Maurer, William Spooner, R.F.D. Oak Ridge Rd., West Lebanon, New Hampshire 03784
1967 McGowan, Thorburn S., University of Connecticut, Storrs 06268
1973 Oxley, Leo L., Box 36, Storrs 06268
1921 Phillips, Karl Tristram, 1174 E. Main, El Cajon, California 92021
1964 Prescott, Blake Daniels, Storrs Rd., Storrs 06268
1970 Rucker, Lucille Gertrude, R.R. No. 1, Box 172A, Storrs 06268
1953 Tobi, Louise Gertrude, Hardy Rd., Loudon, New Hampshire 03301
1970 Wandersee, Edward Paul, Star Route, Mansfield Depot 06251
1972 Wintrob, Ronald Marvin, Devwin Hall, Box 77, Mansfield Center 06250

Associate Members

1941 Burr, Harold Saxton, Town Woods Rd., Old Lyme
1947 Darling, George Bapst, 11 Burns, New Haven 06511
1942 Hamilton, James A., University of Minnesota, Minneapolis, Minn.
1941 Hiscock, Ira Vaughn, 164 Linden, New Haven 06511
1941 Mickle, Friend Lee, 9 Old Pepperidge Lane, Wethersfield 06109
1953 Richardson, William Alan, 99 East Hunting Ridge Rd., Stamford
1954 Sibley, Hiram, 79 West Monroe, Chicago, Illinois 60603

ALPHABETICAL ROLL OF MEMBERS

With medical school and year of graduation

Aaron, S. D., Virginia '64, Westport
Aaronson, R. M., Tufts '67, New Haven
Abad, A. A., Hungarian P. Pazmany '45, Middletown
Abeles, J. H., Univ. Birminghan, England, '70, Westport
*Abbot, F. K., Virginia '46, Middletown (Hartford County)
Abbot, H., St. Un. N. Y. '52, Rockville
*Abbott, J. L., Albany '62, Torrington
Abraham, R. I., Albert Einstein '70, Canton
Abrahamian, H. A., Salonica '49, Waterbury
*Abrahams, I. W., N. Y. U. '57, Meriden
Abrahams, M., Tufts '31, New Canaan
Abrahamson, R. H., McGill '30, Stamford
*Abrams, H., State Univ. New York '57, Fairfield
*Abrams, R. M., St. Louis Un. '43, Waterbury
Abreu, G. B. Santo Domingo, '62, New Preston
Acqua, L. C., Yale '41, East Hartford
Adamo, B., Seton Hall '62, Rockville
*Adams, A. J., Indiana '38, Torrington
*Adams, E. C., Cornell '34, Guilford
Adams, G. R., Jefferson '60, New London
Adams, H. A., Trinity Coll. Dublin '47, Cromwell
Adams, M. Johns Hopkins '29, Bath, Maine (Fairfield County)
Adams, R. J., Ohio State '60, Middletown
Adefuin, Z. A., St. Tomas '65, Bridgeport
Adler, D. H., N. Y. U. '43, Westport
*Adzima, J. M., Maryland '27, Trumbull
Agarwal, C. K., King George's Med. Coll. '53, Rocky Hill
*Agee, F. B., Jr., George Washington '42, Wethersfield
Ahamed, S. Un. Madras '66, Norwich
Ahmed, E. H. S., Alexandria '52, Norwalk
*Ahn, W. B., Yonsei Un. Med. '63, Manchester
Ahola, S. J., Cornell '69, Putnam
*Ahrens, L. B., Vermont '51, New Britain
Aiello, L. J., Boston '35, Norwalk
*Aitken, G. S., N. Y. U. '48, Torrington
Albamonti, M. J., Tufts '38, Norwich
*Albanese, A. N., Siena, Italy '53, Danbury
*Albert, J. S., N. Y. U. '68, Weston
Albert, M., Tufts '57, Meriden
Albis, F. J., Marquette '46, East Haven
Albis, M. D., Marquette '48, East Haven
*Albom, J. J., Columbia '39, New Haven
*Albright, J. A., Illinois '54, New Haven
*Alden, J. O., Tufts '47, Hartford
Alder, W. C., Vanderbilt '70, Hartford
*Alderman, D. B., Long Island '46, New Haven
Alderman, M. Y., Chicago '49, Bloomfield
Alena, G. R., N. Y. Med. Coll., '64, Kansas City, Missouri (Fairfield County)
Alexander, G. S., N. Y. Univ. Sch. of Med., '66, Greenwich
Alexander, J. M., Seton Hall '63, Bridgeport
Alexander, M. M., N. Y. U. '64, Greenwich
*Alfonsi, A. A., Albany '50, Southington
Ali, A. A., King Edward Med. '64, Stamford
*Ali, S. M. Y., King Edward Med. '64, Bridgeport
Alisberg, N., N. Y. U. '44, Bristol
*Allam, A. F., Einshams Un. '58, Bristol
*Allan, T. R., Un. Maryland '71, Hartford
*Allard, G. G., Laval '50, Darien
*Allen, B. I., Washington '32, Norwalk
Allen, E. W., Un. Pennsylvania '57, Guilford
*Allen, J. C., Hahnemann '39, Hartford
*Allen, J. E., Syracuse '30, Norwich
Allen, M. M., Woman's Medical '35, West Hartford
Allen, R., Temple '43, West Hartford
*Allmendinger, P. D., Michigan '64, Hartford
*Allport, V. G., Queen's Un. '46, Hartford
Alonso, L., Valencia Spain '69, Meriden
*Alpert, A. E. Creighton '49, New Haven
*Alpert, M., Yale '28, Bridgeport
Altenberg, H. E., N. Y. U. '47, West Hartford
*Alter, B. N., George Washington '61, Hartford
Altshul, V. A. Yale '60, New Haven
Amanti, J. A., N. Y. U. '49, Stafford Springs
*Amarant, L., Vienna '32, Bridgeport
Amato, J. A., Georgetown '56, West Hartford
*Amato, P. R., Tufts '61, Hartford
*Amatruda, F. G., Yale '23, New Haven
*Amatruda, T. T., Jr., Yale '51, Waterbury
Ambrose, P., Temple '42, Bridgeport
Amdur, M. J., Yale '64, Willimantic
*Ameen, L., Virginia '46, New Haven
*Ames, W. G., Columbia '38, Essex
*Amore, F. R., Bologna '57, New Haven
*Amos, I. L., McGill '26, Tarpon Springs, Florida (Fairfield County)
Anastasi, A. F., Rome '65, Hartford
Anderson, A. S., Catholic Univ., Belgium '57, West Hartford
Anderson, C. W., Harford '34, Old Greenwich
*Anderson, D. R., Tufts '56, Waterbury
*Anderson, F. A., Boston '40, Norwich
Anderson, F. P., Yale '62, New Haven
*Anderson, G. W., Jefferson '46, Hartford
*Anderson, H. B., Indiana '41, Bridgeport
Anderson, H. C., Minnesota '43, Palo Alto, California (New Haven County)
*Anderson, R. M., Boston '40, Norwich
*Anderson, T. E., George Washington Un. '64, Torrington
Andrews, A. E., Beirut '45, Hartford
*Andrews, J. F., Jr., Yale '68, Norwalk
Andrews, R. C., Boston '50, Norwich
Andrews, W. B., Columbia '67, Noank
*Andrulonis, P. A., Jefferson '72, Hartford
*Andrus, O. B., Univ. & Bellevue '32, Milford
*Andrus, W. B., Tufts '61, Portland
Angoff, R., Un. Cincinnati '73, New Haven
Annunziata, V., Long Island Coll. Hosp. '30, Newtown
*Antell, M. J., Vermont '29, Southport
Anthony, J. R., Tufts '60, Waterbury
Anton, M. C., Marquette '39, Newburgh, New York (Fairfield County)
Appleby, R. E., Johns Hopkins '49, Wilton
Apter, H., George Washington '34, Hartford
*Apuzzo, A. A., Tufts '36, Fairfield
*Arafeh, M. K., Syrian '55, Middletown
Arbulu, A. A., Un. Trujillo, Peru '69, Enfield
*Arcano, J. T., Temple '52, Southington
*Archambault, H. A., Tufts '27, Norwich
Archer, G. W., Un. Texas '69, Waterbury
*Arena, A. J., Albany '60, Middletown
Argall, T. R., P & S '61, Bristol
Ariyan, S., N. Y. Med. Coll. '66, New Haven
Armbruster, L. D., Women's Med. Coll. '47, Cheshire
Armm, M. F., New Jersey Coll. Med. '65, Bridgeport
Arnault, D. G., Harvard '43, Middletown
*Arnold, M., Harvard '29, Willimantic
*Arnold, P. B., Tufts '67, Wallingford
*Arnold, W. P., Jr., Columbia '46, Middlebury
Arnstein, R. L., Harvard '51, Hamden
Aromin, S. C., Santo Tomas '55, Moosup (New London County)
Arons, M. R., Maryland '30, West Harford
*Arons, M. S., Maryland '57, New Haven
*Aronson, A. L., N. Y. U. '58, Hartford
*Arrieta, E. J. M., Santo Tomas '67, Rockville
*Arturi, P. A., N. Y. U. '52, Greenwich
Aseltine, D. T., Jr., Vermont '51, Hartford
Asis, J., Cordoba Univ. Argentina '62, New Haven
*Asken, S., Geneva '58, Stratford
Asuncion, C. M., Philippines '55, Hartford
Atkins, M. P., Univ, Coll. Cork, Ireland '57, Rockville

Atlas, E., Albert einstein '61, Norwalk
Atocha, J., San Marcos, Peru '59, New Haven
Atoynatan, T. H., Istanbul '44, Manchester (New Haven County)
*Atwood, A. S., Yale '45, New London (Litchfield County)
*Audet, C. H., Jr., Maryland '46, Waterbury
*Audet, R. J., Maryland '46, Waterbury
*Auerbach, N., Basel '61, Norwalk
Auerbach, S. R., Tufts '63, Bridgeport
*Austin, G. L., Pennsylvania '45, Unionville
Austrian, H., Zurich '55, Trumbull
*Aversa, J. M., S. U. N. Y. '67, New Haven
*Ayotte, L. A., Laval '55, Bristol
*Ayres, P. B., Toronto '32, Cos Cob
*Azar, M. A., St. Joseph '34, Danbury
*Babcock, A. L., Jefferson '52, Hartford
Babenco, G. O., Un. Buenos Aires '58, Hartford
Bachman, J. P., Buffalo '26, LaJolla, California (Hartford County)
*Bachner, P., Columbia '63, Greenwich
*Backhus, L. C., Syracuse '33, Waterbury
Badan, B., Graz '58, Danbury
*Badner, D. H., N. Y. U. '41, Meriden
Bader, L. M., S. U. N. Y. '67, Bridgeport
*Bae, J. G., Seoul Natl'l. Un. '65, Bristol
Bagdasarian, A. D., Stanford '62, Bristol
*Baggish, M. S., Louisville '61, Hartford
Bagnall, J. S., Sheffield Un. '55, Hartford
*Bagnall, R. S., Harvard '43, Bloomfield
*Bailey, R. H., Vermont '55, Hartford
*Baird, R. D., Washington '33, New Milford
Baird, W. H., Tufts '52, Milford
Baker, E. L., Yale '61, Derby
*Baker, G. L., Washington '52, Hartford
Baker, S. M., Yale '64, New Haven
Balakrishna, H., Govt. Med. College '63, New Britain
Balakrishna, S., Med. Coll. Mysore, India '61, Glastonbury
Balazs, D. V., Albert Einstein '72, West Hartford
Baldovi, V. C., Jr., St. Thomas '65, Waterbury
*Baldwin, D. B., Temple '67, Essex
*Baldwin, W. H., N. Y. Med. Coll. '41, Manchester
*Balfour, J. D., Western Ontario '25, Norwich
*Balletto, V., Tufts '33, East Haven
Balmaseda, R. Y., Havana '46, Danbury
Balsam, R. H., Queen's Un. '63, New Haven
Baltazar, A. E., Univ. East Philippines '64, Bristol
Baltrucki, H. C., Vermont '52, Hartford
*Banfield, R. S., Jr., Columbia '51, Stamford
*Bannon, F. M., Vermont '28, Stamford
*Banyard, R. D., Columbia '67, Greenwich
Baptist, V., Boston Un. '42, Bristol
*Barald, F. C., Boston '36, Hartford
Baratz, M. A., Rochester '50, New Haven
*Barber, R. R., Vermont '30, Tucson, Arizona (Fairfield County)
*Barbour, C. M., Jr., McGill '38, West Hartford
*Barbour, P. H., Jr., Yale '41, Farmington
*Bardenheier, J. A., St. Louis '63, Essex
*Barese, A. M., Naples '35, Danbury
*Barile, A. W., Loyola '43, New Haven
*Barker, D. C., Maryland '40, Fairfield
*Barker, N. J., Toronto '26, West Hartford
*Barnett, R. N., Yale '38, Westport
*Barney, W. E., Yale '35, Milford
Baron, B. R., Chicago Med. '62, Stamford
Baron, M. A., Albert Einstein '61, Milford
*Barrera, A. M., Aurora Univ '41, Niantic
Barrero, E. F., Santiago '53, Bridgeport
Barreto, A. R., Un. Asuncion, Paraguay '67, Hartford
*Barrett, F. C., Vermont '46, Norwich
Barrett, J. J., Boston Un. '66, Torrington
Barri, A. R., Vermont '70, Groton
Barroeta, G. R., Central Un. Caracas '63, Meriden
*Barry, E. A., Jr., Laval '46, Moosup
Barry, J. C., Boston '33, Manchester
Barry, R. M., Pennsylvania '54, Mystic
*Barry, R. T., Columbia '46, West Hyannisport, Massachusetts (Hartford County)
*Barse, R. J., Creighton '64, New Haven
*Barstow, R. I., Jefferson '33, Norfolk
Bartlett, E. W., Yale '67, New Haven
*Barton, D. C., Rochester '52, Portland
*Barton, J., N. Y. U. '58, Norwalk
*Bartus, S. A., St. Louis '58, Hartford
Barwick, P. E., McGill '62, Granby
*Barysh, N., Rush '33, Danbury
Basden, E. H., Tufts '33, Columbia (Windham County)
*Basile, J. X. R., Vermont '53, Hartford
Baskin, A. H., Minnesota '32, Storrs (Hartford County)
*Baskin, A. M., Albany '52, New Haven
Bason, R. H., Seton Hall '61, Simsbury
Bass, D. M., Tufts '67, Hartford
Bassford, W. W., Tufts '54, Watertown
*Basu, S. K., Calcutta '60, Hartford
Batelli, C. F., Yale '28, New Haven
Bates, D. H., Long Island '39, Putnam
*Batt, H. D., Hahnemann '50, New Haven
Battista, A. W., Tufts '24, New Haven
*Baue, A. E., Harvard '54, New Haven
Bauer, W. F., Jr., N. Y. Med. Coll. '50, Killingworth
Baughn, S. P., Baylor '73, New Haven
*Baum, S. J., Vermont '48, Fairfield
*Bausch, C. P., Tufts '29, Nantucket, Massachusetts (Hartford County)
Bauta, H. P., Univ. Havana '60, Newtown
Bavor, C. W., Northwestern Univ. '74, Guilford
Baxter, M. F., Tufts '53, Glastonbury
*Bayer, A. E., Vermont '48, New Britain
Bayless, A. E., Southern California '45, Milford
*Beakey, J. F., Tufts '43, Hartford
Bean, K. F., Tufts '60, Bristol
*Beardsley, F. A., Cornell '43, Willimantic
Beasley, A. S., N. Y. U. '47, Westport
*Beatman, B., Albany '52, New London
*Beatrice, A. A., Tufts '29, Bristol
Beatrice, M. A., Columbia '56, New Haven
*Beaty, J. T., Columbia '43, Greenwich
*Beauchamp, L. A., Vermont '44, Waterbury
Beaudoin, J. R., Creighton '68, Danbury
Beck, D., Albany '54, Westport
*Beck, E. C., Yale '26, New York City (Fairfield County)
*Beck, E. M., Yale '48, Greenwich
Beck, J. E., Virginia '39, West Haven
*Beck, R. S., Temple '50, Hartford
*Beck, S. H., Rochester '34, Bridgeport
Becker, A. H., Vermont '43, Bristol
*Becker, G. E., Yale '55, Willimantic
Becker, I. W., Vermont '52, Bristol
*Beckett, R. S., Yale '40, Hartford
*Bedrick, M., Harvard '43, New London
*Bee, R. W., Jefferson '60, New Britain
*Beebe, J. T., Columbia '38, Hartford
*Beebe, J., Albany '48, Waterbury
*Behringer, F. R., Basel '52, Waterford
Beinfield, M. S., Long Island '45, Westport
Bekeny, D. P., Case Western Reserve Un. '72, Hamden
*Belkin, J. W., Maryland '49, New Britain
*Bellach, H., Long Island '33, New Britain
Belleza, N. A., Univ. Philippines '63, New Haven
*Bellis, J. M., Jr., Harvard '51, Hamden
Bellizzi, J. J., Tufts '47, Hartford
*Bellobuono, J. R., Liege '59, Middletown
*Bellucci, A. L., Vermont '54, South Glastonbury
*Bellwin, A., N. Y. U. '45, Stamford

Belman, D.A.J., McGill '66, New Britain
*Benavides, C. G., Pennsylvania '60, Manchester
Bender, L., Hahnemann '39, Colchester
*Bender, M., Med. Coll. Virginia '59, New Haven
*Bender, S. H., Chicago '61, Westport
*Bendett, R. J., Tufts '55, Hartford
*Benjamin, B. I., Columbia '61, Stamford
Benjamin, J. L., N. Y. U. '67, Stamford
Benjamin, M. R., N. Y. Med. Coll. '50, Stamford
Benkovich, G. O., Budapest '30, Rocky Hill
*Benninghoff, D. W., Columbia '53, Greenwich
*Benoit, R. J., Georgetown '26, Clearwater, Florida (Hartford County)
Bensch, K. G., Erlangen '53, Stanford, California (New Haven County)
Benton, A. J., State Univ., N. Y. '57, New Canaan
Benton, P. E., Columbia '34, Orleans, Massachusetts (New Haven County)
Benton, R. P., McGill '56, New London
*Beres, M., Komensky Univ. '59, Bridgeport
Berg, G. R., Univ. Rochester '67, Waterbury
Beres, P., Columbia '52, Westport
Bergendahl, G. T., Tufts '61, Norwich
*Bergendahl, H. A., Tufts '33, Norwich
*Berger, D. S., S. U. N. Y. '63, Danbury
*Berger, J., Univ. Florida '63, East Hartford
Berger, R. O., Un. Louisville '69, Winsted
*Berkley, R. B., Un. Penna. '66, West Hartford
Berkun, S. G., Lausanne '63, Bridgeport
Berland, R. H., Minnesota '61, Hartford
Berlin, B. B., McGill, '56, Hartford
Berlowe, M. L., State Univ. N. Y. '23, New Haven
Berman, A. M., Boston Un. '74, Chester
Berman, L. H., Edinburgh '49, Westport
Berman, S., Long Island '43, New Haven
Bernacki, E. J., New Jersey Coll. Med. '67, Hartford (Litchfield County)
*Bernanke, M., St. Louis '27, Southbury
Bernard, M. T., N. Y. Med. Coll. '44, Norwalk
*Berneike, R. R., Western Reserve '41, New Haven
Bernene, J. L., Albany '67, Greenwich
*Bernstein, A., N. Y. U. '53, New Britain
Bernstein, A. E., N. Y. U. '58, Middletown
*Bernstein, C. M., N. Y. Med. Coll. '54, New Britain
Bernstein, D. J., Vermont '33, New Britain
Bernstein, J., Georgetown '51, Bridgeport
*Bernstein, L., Berne '36, Bloomfield
*Berry, G. N., George Washington Un. '45, Willimantic
Berry, R. W., Columbia '50, Bridgeport
Bersier, A. M., Berne '41, Bridgeport
Bertuch, A. W., Maryland '60, Middletown
*Berwick, P., N. Y. U. '38, Moodus
*Bessa, O., Jr., Parana-Brazil '56, Stamford
*Besser, E. L., Johns Hopkins '37, Manchester
Betten, M. G., Albert Einstein '66, Norwich
Beup, L. P., Univ. Santo Tomas '68, Terryville
Biassey, E. L., Howard '47, Stratford
Biehn, D. M. F., Queen's '37, Fairfield
Biehn, S. L., Toronto '26, Bridgeport
*Bielecki, C. E., Tufts '39, Norwich
Billings, W. C., Columbia '50, New Haven
*Bingham, D. B., Colunbia '66, Salem
Binnie, H. S. P., Edinburgh, Scotland '52, Bethel
Biondi, B., Tufts '38, New Haven
*Biondi, R. M., Creighton '64, Norwalk
*Biondino, C. R., New Jersey Coll. Med. '69, Meriden
Birchall, E. F., Vermont '47, Watertown, New York (New London County)
*Bird, F. L., Cornell '48, Willimantic
Bird, F. S., Vermont '33, Bristol
Bird, K. I., Jr., Temple Un. '68, Durham
Birge, E. B., N. Y. Med. Coll. '57, Stratford
*Birge, H. L., Pennsylvania '33, East Hartland
*Birnbaum, H. B., Royal Coll. England '35, Madison
Birney, T. P., Northwestern '39, Bridgeport
*Bisceglia, J. G., Georgetown '48, Greenwich
*Bishop, C. C., Yale '30, Wardsboro, Vermont (New Haven County)
*Bisson, B. P., Vermont '53, Waterbury
*Bizzozero, O. J., Vermont '27, Waterbury
*Bizzozero, O. J., Jr., St. Univ. New York '62, Waterbury
Blabey, R. G., Jr., Columbia '67, Stamford
Black, J. S., Stritch '59, Hartford
Blain, C. A., Ottawa '57, LaCrosse Wisconsin (New Haven County)
Blakeslee, Sister M. H., Ottawa '67, West Hartford
Blanchard, B. M., Temple '54, Hartford
*Blanchard, D. L., Yale '31, Branford
Blaney, C. C., Boston '40, Bridgeport
*Blaney, L., Cornell '40, Mansfield Center
Blank, G. I., Bern '59, New Britain
*Blank, M. B., Aberdeen '50, Bridgeport
Blank, S., Virginia '41, Waterbury
*Blank, V. E., Free Univ. Brussels '54, Bridgeport
*Blansfield, H. N., Yale '47, Danbury
*Blass, J. W., Univ. Vienna '27, Stamford
Blau, J. S., Upstate Med. Ctr. '68, New Britain
Blechner, J. N., Yale '57, Farmington
Blinkoff, J. J., Un. Bern, Switzerland '37, Torrington
Blodinger, I. E. Yale '25, Boca Raton, Florida (New Haven County)
*Blogoslawski, W. J., Georgetown '27, New Britain
Blomquist, W. S., Tufts '69, Granby
*Bloom, D. I., Tufts*35, Thompsonville
Bloom, G. P., Cornell '69, Hartford
*Blossom, D. B., Columbia '38, Greenwich
*Blum, L. M., Duke '55, Fairfield
Blum, R. S., Wayne State '70, Milford
Blumberg, J. M., N. Y. U. '66, Old Greenwich
Blumer, A. T., St. Un. N. Y. '66, Southington
Boas, N. F., Harvard '45, Mystic (Fairfield County)
*Bobowick, A. R., Tufts '66, Waterbury
Bobrow, A., Berne '39, Hartford
Bobrow, S. M., Downstate Med. Ctr. '68, New Haven
Bobruff, J., Yale '55, New London
*Bockar, J. A., Hahnemann '69, Stamford
Boelhouwer, C., Leiden '57, Hartford
*Bogdan, P. E., N. Y. U. '58, Greenwich
*Bogin, M., Yale '26, Bridgeport
Bohan, G. N., Amer, Univ. Beirut '44, Decatur, Georgia (New Haven County)
Boissevain, A. R., Jefferson '63, Oxford
*Bolt, E. A., Jr., Johns Hopkins '50, Willimantic
*Boltax, R. S., Boston '63, Derby
Boltax, S. P., Temple '62, New Haven
*Bolton, J. D., Hahnemann '43, Greenwich
Bonaccorsi, B. I., Pisa-Italy '55, Waterbury
Bond, O. B., Dunedin, New Zealand '53, Stamford
Bondy, P. K., Harvard '42, London, England (New Haven County)
*Bonhein, N. A., Chicago '70, Greenwich
Bonner, G. A., Vermont '45, New Haven
Bonner, R. A. J., Maryland '38, Waterbury
*Bonnett, D. N., Illinois '43, Greenwich
Bonney, H. T., Toronto '52, Hartford
*Book, D. T., Western Reserve '43, Hartford
Boorer, R. T., St. Thomas '55, Ridgefield
*Bopp, R. K., Vanderbilt '56, Willimantic
Borden, W. A., New York Univ. '58, Bloomfield
*Boren, C. W., Washington Univ. '60, Hartford
Boreyko, C. J., Univ. Argentina '65, Bridgeport
*Borger, A. P., Michigan '53, Old Lyme
Borges, J. S., Cornell '70, Greenwich
*Bornemann, C., N. Y. Med. Coll. '40, Falls Village

Bornstein, H. D., Jr., Yale ’53, North Haven
Borowy, J. E., Yale ’50, Stamford
*Borrelli, A. P., St. Univ. New York ’60, Newtown
Borsos, L. A., Pazmany ’50, Bridgeport
*Bottiglieri, N. G., Un. Vermont ’45, Stamford
Bousa, W. S., N. Y. U. ‘48, Bridgeport
*Bouthillier, J. E., Georgetown ’61, Putnam
Bove, J. R., Maryland ’53, New Haven
Bowen, F. D. T., Maryland ’42, West Hartford
Bowen, M. G., Birmingham ’68, Ridgefield
Bowen, R. P., N. Y. Med. Coll. ’52, Coventry
(Windham County)
*Bowen, W. R., Syracuse ’53, Brookfield
Bower, B. F., Johns Hopkins ’58, Hartford
*Bower, R. S., Madres ’45, New Britain
*Bowman, S. H., Hahnemann, Chicago ’13, Naples, Florida
(Fairfield County)
Boyd, J. E., Albany ’62, Milford
Boyd, R. B., Tufts ’41, Wallingford
Braat, J. P., Utrecht ’30, Manchester
*Braceland, F. J., Jefferson ’30, Hartford
Brackett, J. W. Jr., Columbia ’58, Waterbury
*Bradburn, H. B., Vanderbilt ’56, New Haven
*Bradford, K. A., Downstate Med. Ctr. ’65, New Haven
Bradley, D. F., Jr., N. Y. Med. Coll. ’57, Hartford
*Bradley, E. G., Cornell ’48, Bridgeport
*Bradley, E. T., Cornell ’36, Norwalk
Bradley, R. E., Jr., N. Y. U. ’58, Woodbridge
*Bradley, W. R., N. Y. Med. Coll, ’49, Hartford
(New Haven County)
Brady, J. J., Tufts ’55, Hamden
*Branch, J. C., Johns Hopkins ’59, New Haven
*Brand, E. S., N. Y. U. ’43, New Haven
*Brandon, K. F., Toronto ’32, Hartford
Brandiss, J., Columbia ’26, Miami Beach, Florida
(Hartford County)
*Brandt, A. A., Yale ’51, Milford
*Branom, W. T., Jr., New York Univ ’60, Greenwich
*Braren, C. H., Albany ’62, Wethersfield
Bratu, M., Bucharest-Rumania ’51, Derby
Brauer, R. L., Univ. of Maryland ’64, New Haven
*Braun, R., Vienna ’29, Bridgeport
Braun, R. W., Nebraska ’65, Stamford
Braverman, I. M., Yale ’55, New Haven
*Bravo, A. J., Yale ’64, Bridgeport
*Bray, G. H., Vermont ’47, New Britain
*Breakell, E. S., Buffalo ’47, Stamford
Breck, R. W., Yale ’45, Wallingford
*Breer, R. D., Harvard ’54, Manchester
*Brenneman, A. R., Yale ’58, Hartford
Brensilver, H. L., Columbia ’67, Mystic
*Brewer, A. E., N. Y. U. ’41, Lakeville
*Brewer, F., Columbia ’20, El Cerrito, California
(Hartford County)
Brewer, S. V. L., Hamburg ’59, West Hartford
*Brewer, T. F., III, New York ’57, Old Saybrook
*Brewster, W. B., Jr., Harvard ’42, Hartford
Breyan, N. R., N. Y. Med. Coll. ’67, Bridgeport
Brezina, P. S., Yale ’40, Bristol
*Bria, W. F., Rome ’34 Cos Cob
*Bridburg, R. M., Trinity Coll. Dublin ’61, Hartford
*Brier, H. D., N. Y. U. ’34, Bridgeport
Briggs, H. C., Yale ’57, Winsted
*Briggs, R. S., Yale ’61, Torrington
Brigham, J. C., Tulane ’57, Hudson, Massachusetts
(New Haven County)
*Brink, A. J., Buffalo ’62, New Haven
Britting, J. A., Albany ’55, Windsor
*Broadhead, A. J., Westminster Hosp. ’62, Hartford
Brochin, M., Harvard ’56, New Haven
*Brock, W. H., McGill ’45, Old Greenwich
Brockway, D. W., Long Island ’43, Woodbridge
Brodey, J. F., Jefferson ’66, West Hartford
Brodner, R. A., Loyola ’72, New Haven
*Brodoff, M., Geneva ’53, West Haven
Brodoff, S. S., N. Y. U. ‘46, New Haven
Brody, B. S., Yale ’28, New Haven
*Brody, D. M., Virginia ’61 Washington, D. C.
(Fairfield County)
Brogden, J. M., Tufts ’55, Guilford
Bronson, W. R., Un. Rochester ’58, Hartford
Brook, J. E., N. Y. Univ. ’68, Ridgefield
*Brooks, N. H. Hahnemann ’68, Rockville
Brooks, P. L., McGill ’32, Bridgeport
Brothers, D., N. Y. Med. Coll. ’66, Milford
Brovender, A., Brussels ’58, Norwalk
Brovender, S., Leyden ’59, Westport
Brown, B., Harvard ’64, Hartford
Brown, C. R., Cornell ’45, New Canaan
Brown, D. A., Long Island ’46, Darien
*Brown, D. H., Un. Vermont ’54, Middletown
*Brown, D. L., Columbia ’55, Hartford
*Brown, D. S., Cornell ’45, New Canaan
*Brown, F. F., Jr., Columbia ’40, Torrington
Brown, G. M., Univ. Miami ’71, Southington
Brown, H., St. Un. N. Y. ‘58, New London
Brown, H. J., Maryland ’65, Westport
Brown, J., Middletown
*Brown, L., Jefferson ’61, Hartford
Brown, L. G., Un. California ’68, Newtown
Brown, M. M., Columbia ’69, Sharon
Brown, M. R. S., Temple ’43, Meriden
*Brown, P. N., Hahnemann ’43, Meriden
Brown, P. W., Univ. Michigan ’50 Bridgeport
*Brown, R. B., Cornell ’47, Hartford
*Brown, R. J., Maryland ’44, Trumbull
Brown, S. A., New York Univ. ’66, Hartford
Brown, S. F., Univ. Minnesota ’45, Darien
Brown, W. M., Glasgow ’42, Groton
*Brown, W. T., P. P. Un. Budapest ’32, Derby
*Browne, E. R., Tufts ’46, Willimantic
Browne, F. J., Nat’l. Univ. Ireland ’58, Stamford
*Browne, H. H., Albany ’56, Southington
*Browne, M. A., Cork ’50, Stamford
*Browning, L. D., Jr., Harvard ’49, Stamford
*Browning, S. P., III, Columbia ’54, Norwich
*Brubaker, R. E., Pennsylvania ’36, Old Lyme
*Bruno. J. J., Hahnemann ’35, New Haven
*Bruskin, C. E., Leipzig ’32, Hartford
*Buchalter, D. J., Michigan ’63, Middletown
Buchman, J. G., N. Y. U. ’57, Ridgefield
*Buck, B. J., Harvard ’26, West Hartford
Buckley, D. F., Creighton Un. ’66, Milford
Buckley, J. L., Tufts ’40, Torrington
Buckley, M. B., National Univ. Ireland ’57, Waterbury
*Buckley, W. E., Boston ’33, Middletown
*Buckman, R. F., Long Island ’45, Milford
*Bucknam, C. A., Columbia ’57, Hartford
*Bucknam, F. G., Harvard ’47, Heidelberg, West Germany
(Hartford County)
Bucky, T. L., Yale ’43, Weston
*Buebendorf, D. P., Yale ’60, Essex
Buhain, J. D., Far Eastern Univ. Manila ’67, New Milford
Bujdud, C. M., Un. Puebla ’52, Stamford
Bulaong, R. G., Sto. Tomas ’54, Hartford
Bull, M. B., Columbia ’62, Darien
Bull, S. M., Physicians & Surgeons ’62, Stamford
Bullen, H. G., Pennsylvania ’41, Stamford
Bullwinkel, G. A., Jr., Columbia ’61, Stamford
*Bunce, J. M., Yale ’42, Hartford
Bundy, E. S., Vermont ’48, Meriden (Hartford County)
*Buol, R. S., Harvard ’23, New Britain
Buonomano, R. J., New Jersey Coll. ’68, Simsbury
Burack, J. O., Tufts ’39, South Norwalk

*Burbank, J., Harvard '43, Meriden
*Burch, P. G., Johns Hopkins '63, Meriden
Burchell, R. C., Buffalo '54, Hartford
*Burd, R. M., Columbia '63, Fairfield
*Burke, A. V., Georgetown '53, East Norwalk
Burke, F. H., Georgetown '31, Rockville
Burke, G. F., Minnesota '54, Middletown (Hartford County)
Burke, W. H., Cornell '45, Bridgeport
Burkle, F. M., Jr., Vermont '65, Hanover, New Hampshire (Middlesex County)
*Burnham, B. A., Tufts '34, Waterbury
Burnham, B. E., Pennsylvania '64, Farmington
Burns, D. W., Georgetown '65, Manchester
Burris, J. O., Rochester '56, Danbury
*Burton, G., New York Univ. '63, New London
Buscemi, A., Georgetown '39, Broodfield
Bush, H. S., Jr., Cornell '57, Rockville (Hartford County)
*Butenas, C., Rochester '53, Meriden
*Butler, R. W., Tufts '30, Cheshire
Butt, M. T., King Edward Medical School '71, Middletown
Butterfield, R. K., Tufts '50, Manchester
*Butterfield, W. L., Jr., Harvard '41, Hartford
Byard, R. M., Women's Med. Coll. Pa. '52, Bridgeport
*Byer, S., George Washington '57, New Britain
*Byrne, D. W., Columbia '27, Windsor Locks
*Cacace, V. A., Loyola '39, Bridgeport
Cadelina, W. E., Santo Tomas '62, Derby
Calabrese, C. T., Johns Hopkins '65, Bridgeport
Calabrese, P. R., Un. Bologna '69, Bridgeport
*Calabresi, M., Florence '26, New Haven
Caldarelli, R. A., Loyola '47, Hartford
*Caldwell, D. M., Jr., McGill '52, Manchester
*Calio, J. V., Stanford '46, Hartford
Calise, P. J., Washington Univ. '55, Willimantic
*Callahan, J. L., Georgetown '45, Newington
*Callan, J. P., Univ. Coll. Dublin '63, Wethersfield
Callan, W. M., UConn. '73, Bloomfield
*Calogero, J. A., N. Y. U. '63, Hartford
*Camarda, A. L., Naples '41, Bridgeport
*Cameron, I. R., Trinity Coll. Dublin '61, East Hartford
*Camilleri, J. A., Yale '55, New Haven
*Camp, W. A., Emory '57, Greenwich
*Campbell, C., L. I. College Hosp. '25, Wilton
Campbell, D. I., Queens Un. Ireland '62, Middlebury
*Campbell, I. G. Univ. Durham '58, Manchester
Campbell-Jacobs, R. M., Western Reserve '60, Middletown
Campbell, M. F., Duke '61, Greenwich
*Campbell, R. H., Wayne '35, West Hartford
*Campbell, S., Vermont '23, Meriden
*Campione, M. P., Lausanne '54, Meriden
Candels, L. R., St. U. N. Y. C. '52, Aron
*Caney, W. H., Albany '41, Watertown
*Canfield, N., Michigan '29, Guilford
*Canniff, J. C., Cornell '43, Torrington
*Cannon, J. L., Yale Univ. '47, Simsbury
*Canter, N. M., N. Y. U. '55, Bridgeport
Canty, W. P., Nat'l. Univ. Ireland '54, Putnam
*Canzonetti, A. J., Chicago '44, Waterbury (Hartford County)
Capobianco, A. P., N. Y. Med. Coll. '40, Bridgeport
*Capobianco, L. F., Loyola Univ. '58, Winsted
*Capodilupo, V. M., Naples '54, Bridgeport
*Cappelletti, A. J., Jefferson '46, Waterbury
*Cappucci, L. W., Georgetown '53, New Haven
*Caragol, W. J., N. J. Coll. of Med. '68, Riverside
Carengelo, E. V., Tufts '31, New Haven
Carangelo, J., Tufts '38, Hartford
Cardone, M. J., Vermont '37, Bridgeport
*Carelli, G. F., Yale '11, New Haven
Carey, T. B., Albany '44, Delray Beach, Florida (Hartford County)
*Carey, W. C., Columbia '33, Meriden
*Carignan, R. Z., Georgetown '40, Farmington
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Carlson, D. A., Yale '58, New Haven
*Carlton, L. S., Harvard '52, Hartford
*Carolan, P. J., Seton Hall '63, Bridgeport
*Carpentieri, J. C., Lausanne '58, Hartford
*Carr, M. F., Univ. Coll. Dublin '54, Cromwell (Hartford County)
*Carrabba, S. R., Jefferson '46, Bloomfield
*Carrol, J. E., Boston '25, West Hartford
*Carroll, P. R., Jr., Georgetown '29, Bridgeport
Carroll, R. E., Albany '73, Bridgeport
Carroll, R. Mc., West Virginia '65, Westport
Carter, F. J., N. Y. U. '47, Norwich
*Carter, M. G., Harvard '41, New Haven
Carter, M. K., Georgetown '52, Norwich
*Cartland, J. E., Jr., Columbia '43, Hartford
*Carvey, E. V., Yale '35, Wethersfield
*Cary, J. M., Western Reserve '45, Newington (New Haven County)
Casale, A. J., Hahnemann '60, Hartford
Casazza, A. R., Columbia '62, Danbury
Caserta, S. J., Georgetown '37, Bridgeport
*Casey, E. J., Georgetown '58, Bronx, New York (Hartford County)
*Casey, T. R., Univ. of Manitoba '57, Fairfield
Cashman, J. L., Hahnemann '37, North Haven
Cassell, R. T., Geneva '54, Westport
*Cassin, C. M., New York Med. Coll. '59, New Haven
Cassone, R., Vermont '41, Stamford
*Castagno, M. M., Boston '43, Hartford
*Castagno, R. A., Columbia '41, Hartford
Castaldo, L. F., Tufts '37, Fairfield
*Castiglione, F. M., N. Y. Med. Coll. '42, New Haven
Castro, R. A., Buenos Aires '66, Meriden
Castro, R. P. Havana '45, Danbury
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*Catlin, B., Harvard '66, Greenwich
*Catrini, V. J., N. Y. Med. Coll. '67, Middletown
Cavallaro, P. J., Bologna '51, New Haven
Cavaliere, M. J., Creighton Un. '73, Bridgeport
*Cavaliere, V. J., N. Y. U. '43, Bridgeport
*Cavalieri, R. J., Jefferson '42, Wethersfield
Cavicke, D. C., Tufts '52, New London
*Cavo, J. W., Jr., Virginia '66, New Britain
*Celentano, L. E. H., Hahnemann '30, New Haven
*Cenci, V. P., Tufts '29, West Hartford
Cerciello, R. L., George Washington Univ. '68, Newington
Cerritelli, D. H., New York Med. '62, Middletown
*Ceulemans, C. P., Ghent '52, Middletown
Chace, C. W., Yale '52, Middletown
*Chachkes, J. T., Chicago '58, New Canaan
Chadda, S. K. B., Andhra Med. Coll. '62, Bridgeport
*Chait, S. A., Nebraska '40, Torrington
Chamberlin, A. C., Boston Univ. '57, Stamford
Chambers, C. F., George Washington Un. '61, Ridgefield
Chan, D. W., Kwong Wah Med. Coll. '54, Norwalk
Chandrashekara, B. G., Mysore '66, Milford
Chang, E. C. C., Hong Kong '64, New Haven
Chang, S. C., Seoul '47, New Haven
Chapnick, G. A., Vanderbilt Un. '64, Norwalk
Charde, J. P., Pennsylvania '67, Sharon
*Charendoff, L., Toronto '56, Manchester
*Chartier, G. M., Boston '33, Danielson
*Chasnoff, J. A., Long Island '36, West Haven
Chastanet, D. V. P., Montpellier '59, Milford
Chaucer, N. G., Columbia '41, Hartford
Chavez, A., Univ. Santiago, Spain '64, Waterbury
*Chawla, S. K., All India Insti. of Med. Sciences '63, Hartford
*Chen, F. H., Tien Tsin Med. Coll. '58, North Grosvenordale
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*Cheney, C. B., Yale '41, New Haven

*Cherry, J. B., McGill ’43, Danbury
*Chess, J., Boston Un. Sch. of Med. ’70, Norwalk
*Chester, L. L., Vermont ’38, Bloomfield
*Chetrick, A., Yale ’53, New Haven
*Cheung, E. H. F., Un. of the East ’67, North Branford
Chheda, J. R., G. S. Medical ’63, New London
Chiang, H. T. Nat’l. Taiwan Un. ’63, Greenwich
*Chiapppinelli, D., Tufts ’46, Milford
*Chiaramonte, C. T., Long Island ’26, North Salem, New York (Fairfield County)
*Chick, F. B., N. Y. Med. Coll. ’46, Easton
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*Chiota, J. A., Vermont ’37, Bridgeport
Chirot, M., Un. Paris, ’39, Stafford Springs
Chobian, J. A., Loyola ’33, Oxford
*Choi, C. S., Seoul Nat’l., Un. ’58, Farmington
Choksi, Y. H., Fac. Med. India ’62, Bridgeport
*Chotkowski, L. A., Yale ’42, Kensington
Chowdhury, M. G., Dacca Med. Coll., Bangladesh ’69, Windsor
*Choy, O. G., Downstate Med. Sch. ’72, Bridgeport
*Christie, F. J., N. Y. U. ’46, Greenwich
*Christoforo, J. M., Georgetown ’64, North Haven
Chumnanvech, N. L., Chiengmai Med. Sch. ’67, Westport
Chumnanvech, T., Chiengmai Med. Sch. ’65, Norwalk
*Chung, E. K., Yonsei ’62, Putnam
Ciardiello, K. A., New Jersey ’68, New Haven
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*Cihak, H., Charles Un. ’62, East Hartford
*Cimmino, G. N., Yale ’60, Ansonia
Cinti, D. C., Temple ’69, Hartford
*Cipriano, A. P., Long Island ’41, New Haven
*Cirmo, W. F., Vermont ’59, Wallingford
Citrano, E. C. Louvain ’58, Trumbull
*Clapp, P., Harvard ’52, New Britain
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*Clason, F. P., Harvard ’15, West Hartford
*Clayton, E. M., Yale ’59, New London
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*Cleaver, R. S., Jr., Cornell ’45, Bridgeport
*Clement, D. H., Harvard ’35, New Haven
Clement, P. A., Un. Cincinnati ’58, New Haven
*Clift, G. V., Columbia ’58, Fairfield
*Climo, S., Ohio ’29, New Haven
*Cloonan, J. J., Georgetown ’40, Stamford
Coassin, N. A., Yale ’55, Milford
*Coates, S. P., Maryland ’34, Suffield
Cobb, R. J., N. Y. Med. Coll. ’57, Hartford
Cocco, T. D., Rome ’57, Bridgeport
Cocilovo, V., Palermo ’53, Newington
Cody, T. P., Long Island ’36, New Canaan
Coe, M. J., Queen’s Univ. ’57, Portland
*Coe, R. E., Tufts ’51, Hamden
*Coelho, J. N., Lisbon ’49, Hartford
*Cogswell, L. P., Harvard ’33, Hartford
*Cohart, E. M., Columbia ’33, New Haven
Cohen, B., Albany ’42, Newington
Cohen, G. A., S. U. N. Y. ’68, Ridgefield
Cohen, G. M., College of Virginia ’69, Meriden
Cohen, G. S., Yale ’63, Orange
*Cohen, H. G., N. Y. Med. ’43, Danbury
Cohen, I., Hebrew Univ. Israel ’61, West Hartford
Cohen, I. S., S. U. N. Y. ’67, Fairfield
Cohen, L. S., N. Y. U. ’58, New Haven
Cohen, R. B., St. Univ. N. Y. ’69, Bloomfield
Cohen, R. H., Un. Pittsburgh ’66, Avon
Cohen, S. A., N. Y. U. ’66, Stratford
*Cohen, S. L., Buffalo ’53, Bridgeport
Cohen, W., Western Reserve ’56, Waterbury
*Cohen, W., Yale ’23, New Haven
Cohen, W. B., N. Y. U. ’63, Fairfield
Cohn, F. L., Yale ’71, Bethany
Cohn, G. L., Hahnemann ’50, Hamden
Cohn, S. H., Boston ’34, Hartford
Cohn, W. M., U. Pittsburgh ’71, Wilton
Colburn, R. F., Vermont ’37, Stamford
Cole, J. W., Washington ’44, New Haven
*Cole, M. J., St. Bartholomew’s ’39, Hartford
*Cole, R. G., Meharry ’44, New Haven
Cole, R. M., Cincinnati ’57, Greenwich
*Coleman, J. V., Vienna ’34, New Haven
Coleman, M., Long Island ’42, Stamford
Coleman, P. J., Georgetown ’54, Danbury
*Coletti, L., Vermont ’57, Norwich
Coley, G. M., Harvard ’53, Hartford
*Collias, J. C., Yale ’56, Hartford
*Collins, C. D., Univ. Illinois ’65, Plainville
*Collins, J. O., Baylor ’29, Watertown (New Haven County)
*Collins, J. T., Jr., State Univ. of N. Y. ’57, New Haven
Collins, R. N., Yale ’62, Sharon
*Collins, W. F., Yale ’47, New Haven
Colliton, R. J., Kansas ’62, Vernon (Hartford County)
*Colman, N. D., Tufts ’67, Sharon
Colmers, R. A., Vienna ’37, Savannah, Georgia (Fairfield County)
*Colom, W. A., Temple Univ. ’73, New London
*Colwell, B. S., Yale ’48, Hamden
Combs, J. T., Johns Hopkins ’59, Wallingford
Conant, R. G., Georgetown ’49, Hartford
Conboy, K. E., Creighton Univ. ’69, Greenwich
*Concannon, P. R., Nat’l Un. Ireland ’64, Meriden (Middlesex County and New Haven County)
*Conklin, C. T., Jr., Vermont ’41, Thomaston
Connell, T. H., Jr., Michigan ’45, Bridgeport
*Connolly, A. J., Georgetown ’28, New Haven
Connolly, J. F., N. Y. Med. Coll. ’59, Bridgeport
*Connolly, J. P., Georgetown ’36, Stamford
*Connor, G. M., Boston ’35, Plantsville
Conrad, C. C., Tufts ’54, Colchester
*Conroy, J. T., Vermont ’55, West Hartford
Conroy, M. M., Cornell ’59, Meriden
*Conte, B. L., N. Y. Med. Coll. ’50, New Haven
*Conte, H. C., N. Y. U. ’54, New Haven
*Conte, M. G., Naples ’35, New Haven
*Conway, D. F., Jr., Columbia ’37, New Haven
*Conway, E. J., Yale ’44, Hartford
*Conway, M., St. Bartholomew’s ’43, West Hartford
Conway, M. M., Un. California ’73, Rockville
*Cook, C. B., London Univ. ’51, Stamford
*Cook, D. E., Cincinnati ’55, Old Saybrook
Cook, R. S., Jr., Hahnemann ’68, Rockville
*Cook, T. J., Pennsylvania ’59, Norwich
*Cook, W. H., Western Ontario ’47, Bridgeport
Cooke, R. W., Yale ’43, Hartford
*Coolidge, M. P., George Washington ’62, Fairfield
Coomaraswamy, R. P., N. Y. U. ’59, Greenwich (Litchfield County)
Cooney, G. E., Nebraska ’60, Bridgeport
Cooper, D. W., Pennsylvania ’54, New London
*Cooper, E. B., Temple Univ. ’54, Bridgeport
*Cooper, M., Cornell ’48, Fairfield
*Cooper, P. A., State Univ. N. Y. ’53, Hartford
Cooper, R. A., Rochester ’60, New Haven
Copeck, G., Zurich ’56, Stratford

Copen, D. L., S. U. N. Y. Downstate '69, Danbury
Coppes, H. R., Amsterdam '57, Milford
Coppeto, C. J., Marquette '39, Waterbury
Coppeto, J. R., Harvard '70, Waterbury
Coppola, P. J., Georgetown '69, New Haven
*Coral, M., University of Zurich (Switzerland) '39, Terryville
*Corazzelli, F. G., Jr., Bologna '56, Trumbull (New London County)
*Corcoran, M. A., Tufts '30, Cromwell (Hartford County)
Corey, J. M., Tufts '59, Norwalk
Corey, W. Van A., George Washington '33, Hamden
*Corley, E. H., Howard '49, Bridgeport
*Cornacchia, R., Naples '51, Naugatuck
*Cornelio, F. J., Georgetown '34, Winsted
Cornett, S. J., Queens '55, Cromwell
*Corradino, C. L., Tufts '29, New Haven
*Corridon, J. D., Georgetown '28, East Norwalk
*Corsaro, T. P., State Univ. New York '56, Milford
*Corso, P. F., Tufts '52, Bridgeport
*Corwin, D. B., Syracuse '32, Norwalk
Corwin, H. R., Long Island '42, Norwalk
Coscia, A. G., Cornell '68, Norwalk
*Cosentino, R. T., Georgetown '62, New Britain
*Coshak, M., Boston '37, Waterbury
*Costa, P. J., Yale '55, Norwich
Costantini, L., Un. Padova, Italy '71, West Hartford
*Cottiero, T., Yale '26, Waterbury
Cottle, R. D., McGill '60, Stamford
*Couch, F. H., Yale '30, Cromwell
Coughlin, F. R., Jr., Yale '52, Stamford
*Coulson, L. A., St. U. N. Y., N. Y. C. '52, New London
*Cousins, M. L., Vermont '52, New Haven
Covey, S. S. St. U. N. Y. '70, New Haven
Covey, W. G., Physicians & Surgeons '62, Stratford
*Cox, M. E., Cincinnati '36, Waterbury
Cozzolino, E. N., Harvard '33, West Haven
Craighill, M. D., Johns Hopkins '24, Southbury
*Cramer, S. L., N. Y. Medical '41, Hartford
Crampton, C. B., Yale '37, Middletown
*Crane, J. E., Vermont '39, Stamford
Cranston, R. W., Jr., Albany '46, Norwich
*Crary, H. I., Columbia '48, New Canaan
*Craven, R. O., N. Y. Med. Coll. '62, Newtown
*Crawford, J., Howard '59, Hartford
Crawford, W. O., Jefferson '59, Guilford
*Creatura, J. A., Yale '58, Bridgeport
*Creaturo, N. E., Boston '31, Trumbull
Crisafi, B. R., Stritch '63, Greenwich
*Crispin, M. A., Temple '41, West Palm Beach, Florida (Hartford County)
*Crombie, H. D., Jr., Tufts '61, Hartford
*Cronan, T. L., Stritch '56, Trumbull
Cronin, M. T. I., Georgetown '65, New Haven
Cronin, R. J., N. Y. Medical '59, Hartford
Cronin, W. T., New York Med. Coll. '59, Norwalk
Cross, V. F., Un. Vermont '53, Sharon
Crossman, W. F., Georgetown '65, Trumbull
*Crothers, C. H., Yale '44, New Britain
Crowley, J. W., Catholic Univ. '54, New Britain
*Crown, C. A., Illinois '47, New Canaan
Crowther, D. F. S., N. Y. Med. Coll. '64, Cromwell
*Cruz, L. R., Nat'l. Univ. Columbia '66, New Haven
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*Csovanyos, L., Budapest '39, East Norwalk
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*Cullen, C. F., Jefferson '48, Hartford
*Cullen, J. R., Georgetown '36, Somers
Cullen, M. T., Woman's Med. Coll. Pennsylvania '56, West Hartford
Cullina, J. C., George Washington '48, Hartford
Cunin, B. M., Temple '62, Hartford
Cunningham, P. R., Yale '49, Guilford
Cunningham, R. D. M., Yale '30, Southbury (Fairfield County)
Curi, J. F. J., Yale '64, Torrington
*Curis, F. T., Georgetown '56, Hartford
*Curley, W. H., Jr., Cornell '38, Bridgeport
*Curran, E. A., Albany '68, Putnam
*Curran, J. J., Georgetown '61, Hartford
*Curran, T. L., Boston U. '39, Hartford
*Curtis, B. H., Columbia '36, Newington
*Curtis, W. B., Columbia '34, Fort Lauderdale, Florida (New Haven County)
*Cusanelli, G. N., Long Island '46, New Haven
*Cushman, G. L., Tufts '43, Woodbury
Cushman, L. A., Harvard '24, West Hartford
Cusnir, M., Frankfurt '36, Meriden
*Cutler, H. J., New York Med. Coll. '59, Waterbury
*Cutler, H. S., St. Louis '37, Hamden
Cwik, R. A., Tufts '66, Guilford
Cyrus, R. W., St. U. N. Y. '65, Westbrook
Czaja, R. J., Tufts '53, Thompsonville
Czarsty, J. C., Georgetown '54, Oakville (New Haven County)
Czuczka, P., Albert Einstein '70, Westport
*da Costa, J. F., Lisbon '55, Hartford
*D'Aiuto, M. L., St. Louis '60, Bridgeport
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Dalal, B. J., Sheth G. S. '59, Bridgeport
*Dalburg, L. A., Jr., N. Y. Medical '58, New Britain
Dale, P. W., Hrvard '47, Greenwich
Dalgin, P. H., Buffalo '68, Stamford
*Dallas, M., Boston '22, New Haven
D'Alotto, J. A., State Univ. N. Y. '63, Hartford
Daly, J. E., Tufts '44, Waterbury
D'Amato, R. L., Un Connecticut '73, Cromwell
*Dambeck, A. B., Vermont '54, Waterbury
*D'Ambruoso, D. C., Columbia '36, West Hartford
*Damiani, R. A., Tufts '33, Wolcott
*D'Amico, M., Yale '31, North Haven
Danaher, T. H., Yale '57, Torrington
*D'Andrea, F. H., Yale '29, Shoreham, Vermont (Fairfield County)
Danehower, R. L., Pennsylvania '65, Greenwich
*D'Angelo, A. J., Rome '42, Southington
*D'Angelo, D. A., Georgetown '55, Waterbury
*D'Angelo, E. J., Rome '42, Southington
*Daniels, D. S., Virginia '69, Waterbury
Daniels, E. H. Jr., Howard '52, Hartford
Daniels, J. C., Rochester '56, Danbury
Danielson, K. S., Harvard '65, Waterbury
*Danigelis, J. A., Vermont '59, East Hartford
Dann, O. T., Yale '62, New Haven
Danoff, S. J., N. Y. U. '55, Stamford
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Danzig, S. D., Lausanne '37, New Milford
Daoud, I. M., Damascus Un. '71, Hartford
D'Apice, J. P., St. Louis Un. '65, Fairfield
*Darrow, J. E., Tufts '28, New Britain
Das, A., Univ. Calcutta '67, Bloomfield
Daukas, C., Yale '55, East Hartford
*Daukas, N. J., N. Y. U. '47, Middletown
*Dauphinais, R. M., St. Louis '61, Hartford
Dautrich, A. W., Yale '39, Litchfield
*Davenport, J. J., Jr., Georgetown '59, Farmington
*Davey, L. M., Yale '43, New Haven
*David, N. D., Teheran '43, West Hartford
*Davidson, A. C., New York '62, Derby
*Davie, R. N., Louisiana '44, Waterbury
Davis, C. D., Johns Hopkins '39, New Haven
*Davis, J. B., Kansas '33, West Columbia, South Carolina (New Haven County)

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*Day, E. J., N. Y. Med. Coll. '54, West Haven
*Dayton, C. J., Temple '47, Cheshire
*Dean, M. A., Tufts '43, Bridgeport
*Dean, P. M., Columbia '44, Greenwich
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*Dearani, A. C., Georgetown '53, Norwalk
DeBernardo, R. L., Georgetown '63, Bridgeport
*DeBonis, G. M., Northwestern '66, Bridgeport
*DeCarlos, K. A., Tufts '64, Hartford
*deChabert-Ostland, J. G., Paris '34, Hartford
De Dios, V. K., Santo Tomas '64, New Haven
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*'de Escobar, D. M., Un. Sao Paulo '54, Waterbury
*deForest, G. K., Yale '32, New Haven
DeFrance, J. H., Jefferson '69, Danbury
*DeFusco, L. A., Georgetown '62, East Hartford
DeGraff, A. C., Jr., N. Y. U. 55, Hartford
deGroot, T. J., Nat'l. Un. Ireland '66, Norwich
*DeJesus, C. P. V., Santo Tomas '62, West Haven
DeKlyn, W. B., Temple '41, Danbury
*Delany, F., Columbia '45, Greenwich
*Delgado-Fourzan, E., Mexico '43, Hartford
*Delgrego, A. L., George Washington '30, New Haven
*D'Elia, F. G., Georgetown '53, Fairfield
*D'Elia, P. F., Tufts '44, New Haven
*DeLibero, A. F., Rome '45, Bridgeport
*Della Porta, J., Univ. of Naples '52, New Haven
*Della Valle, L., Bologna '60, Hamden
Delligan, F. W., Georgetown '41, Hartford
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*DelVecchio, L. F., Georgetown '31, Stratford
DeMaio, J. T., Tufts '60, Hartford
Deming, A. S., Harvard '40, Hartford
*Deming, C. D., Johns Hopkins '10, West Hartford
Deming, E. G., Harvard '40, Hartford
Demir, P., New York Med. Coll. '59, New Haven
*Demko, R. M., N. Y. U. '54, Manchester
*DeNegre, L. M., Seton Hall '60, Milford
*DeNicola, M., Yale '54, Prospect
*Dennen, P. C., Univ. Buffalo '49, Waterbury
*Denton, C. R., Vermont '48, Hartford
*DePasquale, F. L., Pennsylvania '26, Hartford
*DePasquale, J. A., Pennsylvania '36, Hartford
*DePetrillo, B., Bologna '54, Waterbury
*DePonte, R. J., Yale '61, New Haven
Derby, J. H., McGill '60, New London
*Deren, M. D., Syracuse '33, Bridgeport
*Derkash, S. L., Hahnemann '40, Greenwich
*Desmond, C. T., Boston U. '38, Bethesda, Maryland (Hartford County)
D'Esopo, J. N., McGill '31, Hamden
de Suto-Nagy, G. I., Royal Hung '35, West Haven
*de Suto-Nagy, I. K., Royal Hung '15, New Haven
*DeTora, A. M., Boston '40, Stafford Springs
Deutchman, R. F., Un. Berne '66, Stamford
*Deutsch, J., Hahnemann '48, Hartford
Devarajan, O., Madras Med. Coll. '64, Newtown
*Devenis, M. M., Yale '19, Santa Monica, California (New Haven County)
*DeVille, D. B., Nat'l. Univ. Ireland '56, Middletown
*DeWitt, E. N., Pennsylvania '17, Fairfield
Dey, F. L., Northwestern '44, New London
Dhandapani, B., Madras Medical '63, Tolland
Dhumale, S. H., G. S. Med. Coll. '65, Southington
Diamond, E. H., Breslau '32, Norwalk
Diana, P. W., Jr., Pennsylvania '69, Southington
*Diaz, A., Mexico '56, Putnam
*Diaz, O. B., Univ. Santo Thomas '68, Bristol
*Dickinson, G. H. Vermont '46, Meriden
*Dickinson, W. W., Pennsylvania '42, Yalesville
Dickson, C. M., Jefferson '66, Hartford
Dickson, H. M., Pennsylvania '58, New London
*DiCorato, F., Bari '50, Norwalk
Diggs, A. M., Maryland '52, Waterbury
*DiGiandomenico, a. T., St. Louis '41, Meriden
*Dignam, B. S., Yale '35, Thompsonville
*DiGrazia, P. V., Lausanne '61, Brookfield
*DiLorenzo, S. F., Tufts '43, Waterbury
DiMauro, L. M., Georgetown '72, Cheshire
DiMeola, H. J., Albany '68, Rockville
*Dimlich, H. K., Hahnemann '58, West Simbury
*Dineen, J. P., Cornell '55, Derby
Dinep, M., Bern '56, New Britain
*Dingman, P. V., Columbia P. & S. '42, Waterbury
*Dion, A. J., Tufts '28, Hartford
*Dion, J. A., Georgetown '37, Hartford
DiPasquale, N. M., Univ. Bologna '69, Derby
*DiSabatino, C. A. Jr., Boston Univ. '72, New Haven
*Diskan, A. E., Temple '37, Manchester
*Diters, E. N., Tennessee '48, Collinsville
Dobbs, W. G. H., Rochester '34, Portland, Oregon (Litchfield County)
Dobrow, R. J., Harvard '60, Hartford
*Dobson, J. P., Columbia '36, Arcadia, Florida (Fairfield County)
Dock, D. S., Johns Hopkins '54, New Haven
*Doctor, D. W., N. Y. Med. '52, Westport
*Doctor, J. E., Downstate Med. Ctr. '59, Westport
*Doctoroff, S. J., Columbia '64, New Britain
Dodd, A. H., Temple '48, Willimantic
Dodd, S. G., Temple '48, Willimantic
*Doering, E. G., Bonn '53, Greenwich
*Doering, R. W., Kansas '48, Bridgeport
*Doerr, W. J., Erlangen '40, Hartford
Dogali, M., McGill '70, Bridgeport
*Doheny, J. J., N. Y. Med. Coll. '56, Derby
Doherty, H. E., Georgetown '55, Bridgeport
Doherty, R. C., Vermont '47, West Hartford
Dolan, E. P., McGill '50, Bridgeport
Dolan, V. l., State Univ. New York '56, Cleveland Heights, Ohio (Litchfield County)
Dolberg, H. M., Leiden '58, Westport
Dolinsky, A. H., N. Y. Med. School '51, New Haven
Dombrowski, E. H., St. Univ. New York '61, Stamford
Donadio, J. A., Yale '66, Middletown
*Donnelly, J., Liverpool '38, Hartford
Donnelly, J. E., State Univ. New York '58, Bethany
Donnelly, J. F., State Univ. New York '58, Seymour
Donnelly, V. P., McGill '56, Bridgeport
Donnelly, W. G., Creighton '68, Sharon
D'Onofrio, G. R., Jr., George Washington Univ. '67, Stamford
*Donohue, S. M., Tufts '48, Windsor
*Donovan, J. F., Harvard '52, Hartford
*Donovan, T. J., Harvard '46, Hartford
Donovan, W. F., Boston '31, West Hartford
*Donshik, P. C., N. Y. Med. Coll. '68, Hartford
Dooley, J. A., St. Louis '55, Portland
*Dorantes, J., Mexico '54, Old Lyme
Dorfman, G., Tulane '50, New Britain
*Dorian, E., Maryland '37, New Britain
Dorison, E. E., Berne '56, Westport
Dorr, J. R., Yale '57, Darien
Dougherty, A. J., Univ. Coll. Galway '60, Hartford
Doura, M. E., Brussels Med. Sch. '70, Bristol
Dowaliby, J. M., II, Yale '67, New Haven
*Dowling, K. V., New York '57, Hartford

*Downer, M. C., Boston '29, West Hartford
Downing, L. C., Meharry '60, New Haven
Downs, E. F., Johns Hopkins '37, Bronxville, New York (Litchfield County)
Doyle, F. W., Yale '55, Willimantic
*Dragon, R. E., Yale '66, New Britain
Drakonakis, A. C., Univ. Athens '61, Branford
Draper, T. F., Queen's '55, Newtown
Drennan, J. C., Cornell '61, Newington
Dressler, D. M., Chicago '64, New Britain
Dreyer, N. P., N. Y. U. '67, Stamford
Driscoll, A. J., Boston '47, Bristol
Drobnes, S., Freiburg, '37, Norwich
Drury, R. W., Duke '64, Glastonbury
D'Souza, A. G., Bangalore Med. '66, Wilton
*Dubissette, M. E., Howard Univ. '50, Stamford
*Duboczy, J. B. St. Un. New York '67, Hartford
*Dudac, T. W., Georgetown '33, Southington
*Dudley, J. P., Minnesota '57, Los Angeles, California (Fairfield County)
*Dudzic, A. L., Ottawa '58, Waterbury
Duers, J. A., Albany Med. '64, Willimantic
Dufort, R. T., Georgetown '64, North Grosvenordale
*Dugas, J. A., Loyola '38, Bridgeport
Duke, M., N. Y. U. '54, Manchester
*Duksa, W. J., Georgetown '37, West Hartford
*DuLeep, K. S., Osmania Med. Coll. '57, Westport
Dunn, E., Upstate Med. Ctr. '51, Waterbury
Dunn, H., Amsterdam '58, Hartford
*Dunn, M. L., N. Y. U. '43, New Britain
*Dunne, M. J., Queen's Univ. Belfast '58, Alexandria, Virginia (Hartford County)
*Dunsmore, R. H., Hahnemann '43, Hartford
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Dushane, J. E., Tufts '36, Hartford
Dutton, R. S., McGill '63, Winsted
*Duzmati, P. P., Jefferson '36, Bridgeport
Dworken, D. S., Boston '55, Bridgeport
Dwyer, F. D., Med. Coll. Pa. '67, New Haven
Dwyer, G. K., Rochester '43, Norwalk
*Dwyer, H. L., Northwestern '43, New Haven
*Dwyer, R. D., Georgetown '67, Essex
*Dwyer, R. T., Tufts '50, Granby
*Dwyer, W. J., Tufts '50, Granby
Dyer, C. E., Tufts '28, New London
Dyer, C. F., Cornell '47, New London
*Dyer, R. H., Jr., Cornell '63, Waterbury
*Dzubaty, M., Buffalo '48, West Haven
Eadie, F. S., Tufts '48, Norwich
Eagan, E. C., Albany '43, Hartford
*Earle, L. H., Jr., Tufts '50, West Hartford
*Eaton, H. E., Vermont '49, Pomfret
Ebbert, A., Jr., Virginia '46, New Haven
*Ebers, T. M., Nebraska '31, Sedona, Arisona (Hartford County)
*Echental, A. A., Geneva '63, Stamford
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Ecker, M. D., N. Y. U. '70, Stamford
Eckert, G. R., Tufts '33, Newtown
Eckhart, K. L., Temple Univ. '67, Portland
*Eckhardt, W. F., Jr., N. Y. U. '53, New Canaan
*Eddy, J. R., Vermont '53, Manchester
*Edelson, M. H., Chicago '55, New Haven
*Edelstein, B. L., Hahnemann '60, Bloomfield
Edelstein, S. W., Hahnemann '57, Hartford
Edgar, E. E., Tufts '61, East Lyme
*Edgar, M. S., Jr., Columbia '59, Norwich
Edkin, R. E., Howard '59, Hartford
Edmonstone, W. M., Rochester '43, Mystic
Edson, D. H., Vermont '42, Danbury
*Edson, R. C., Jefferson '31, St. Augustine Shores, Florida (Hartford County)
*Edwards, L. E., George Washington '47, Fairfield
*Egee, J. B., Hahnemann '34 Southbury (Fairfield County)
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*Ehrlich, E. L., Bern '58, West Hartford
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*Eilbergas, M., Zurich '41, Windsor Locks
Elimas, A., Tufts '30, Bridgeport
*Eisen, S. L., Albany '66, Waterbury
*Eisenberg, J. H., State Univ. N. Y. '62, Bridgeport
*Eisenberg, S. E., Rochester '39, New Britain
Elazequi, I. A., Santo Tomas '65, Hartford
Elazegui, R. A., Santo Tomas '69, Bloomfield
*Elder, W. J., Charing Cross Hosp. '55, Stamford
*Elgosin, R. B., McGill '40, Madison
*Eliasoph, J. L., N. Y. U. '49, Stamford
Elisofon, R. M., S. U. N. Y. '67, Ridgefield
Elliot, K. G., Tufts '26, West Hartford
Elliott, F. G., Jr., Howard '40, Bridgeport
Elliott, J. R., Boston '32, Bridgeport
Ellis, G. D., Albany '50, Waterford
Ellis, L. G., Jefferson '20, Rocky Mount, North Carolina (Hartford County)
*Ellis, W. A., Jefferson '40, Hartford
*Ellison, L. H., Boston '64, Hartford
*Ellison, M. M., Rochester '43, New London
*Ellrich, D. L., Jefferson '28, Westport
Ellsworth, M H., S. U. N. Y. '68, Putnam (Hartford County)
Ellzey, W. J., Tulane '64, Willimantic
Elser, J. P., Georgetown '56, Naugatuck
Ely, J. G., Harvard '23, Lyme
*Emery, F. M., Columbia '29, Guilford
Emmel, R. C., Cornell '45, West Hartford
*Eng, G. O., Yale '49, Stamford
Engel, H. P., Durham, England '55, Milford
*Engelke, H. A., N. Y. Med. Coll. '59, Gales Ferry
Enowitch, B. I., Univ. Geneva '66, Hartford
*Enriquez, A. R., San Marcos '63, New Britain
Ephraim, P. D., Albert Einstein '65, Orange
*Epstein, B., Vienna '36, Danbury
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*Epstein, J. I., Yale '43, Middletown
*Erami, M., Geneva '56, Bristol
Eras, P., S. U. N. Y. '60, Bristol
Erdelyi, P. G., Pazmany Peter '41, Stamford
Ergin, M. T., Istanbul '50, Hartford
Erichson, R. B., Cornell '60, Stamford
Eriksen, L., Un. Queensland Sch. Med. '69, Waterbury
*Errera, P., Harvard '53, West Haven
*Errico, A. V., Naples '59, North Haven
*Escobar, S., Siena, Italy '70, Bridgeport
Esdaile, W. W., Meharry '62, New Haven
Esfahanian, S., Tehran '65, Norwich
*Eslami, M. S., Tehran '57, Waterbury
Esposito, J., Louvain '71, New Haven
*Esposito, J. J., Columbia '37, Bridgeport
*Esposito, M. J., Boston '49, Meriden

Estela, J. A., Un. Santo Tomas '64, Bristol
*Estrada, J. A., Santo Domingo '54, New Milford
Etkin, T. H., Yale '71, West Haven
*Etkind, E. L., Albert Einstein '62, New Haven
*Etkind, M. G., Maryland '33, New Haven
*Evans, D. T., Vermont '62, Newtown
*Evans, J. E., Mississippi '68, Hartford
*Evans, T. S., Columbia '21, New Haven
*Evarts, J., Columbia '29, Millerton, New York (Litchfield County)
Exconde, F., V., Jr., Far Eastern Univ. '62, Danbury
*Fabbri, R., Jr., Yale '64, New Haven
Fabian, R. L., Tufts '66, Waterbury
Fabrizio, T. I. J., Helsinki '57, Norwalk

*Fabro, J. A., Tufts '37, Torrington
*Fagen, F. J., Boston '38, New London
Fagen, F. X., Cornell '33, Wethersfield
Fahy, R. A., Royal Coll. of Surg. Ireland '68, Hartford
Faiaz, E. K., Tehran '51, Hartford
*Fairlie, C. W., J., Columbia '41, Hartford
*Fakkel, M. J., Tufts '50, Stamford
*Falk, M., Lausanne '61, Naugatuck
Falk, S., N. Y. U. '54, Bristol
Falkenstein, R. J., Yale '69, Danbury
*Falsone, J. J., Long Island '47, Norwalk
Fand, R., N. Y. U. '62, Danbury
*Fanning, J. B., Nat'l. Univ. Ireland '57, North Haven
*Fanslow, A. W., New York '55, Stratford (New Haven County)
Farber, L. R., S. U. N. Y. '65, New Haven
Farland, V. L., Montreal '25, Fort Lauderdale, Florida (Hartford County)
*Farraye, J. J., Univ. of Bologna, Italy '70, Avon
*Farrell, H. F., N. Y. Medical '54, Torrington
Farrell, J. E., Georgetown '52, Stamford
Farrell, R. F., Vermont '42, Stamford
*Fasanella, R. M., Yale '43, New Haven
*Fasano, L. A., New York '55, New Haven
Fauliso, R. J., Tufts '60, Hartford
*Favata, J., Lausanne '58, Waterbury
Fay, W. J., Harvard '14, Hartford
Fazzari, P. J., Albany Med. Coll. '67, Newington
*Fazzone, A. C., Seton Hall '61, Bridgeport
Fazzone, P. R., Yale '58, New Haven
*Fearon, H., St. Univ. New York '27, Washington
Fearon, R. E., Harvard '61, New Haven
Federico, F. N., Jefferson '65, Bridgeport
*Feeney, T. M., Boston '36, West Hartford
Feierstein, S., Zurich '63, Huntington
Feinglass, E. J., Johns Hopkins '70, New Britain
Felber, J. H., Vienna '45, West Hartford
*Felder, E. A., Jefferson '48, Darien
Feldman, M. G., Boston '58, Bridgeport
Feldman, P., Med. Coll. Georgia '61, Hartford
*Feldman, R. A., Albert Einstein '66, Waterbury
*Feldman, S. M., Boston '54, Bridgeport
Feller, C. W., New York '67, Norwalk (Hartford County)
Fenaughty, R. W., St. Univ. N. Y. '57, New Britain
*Fenelon, E., Faculty of Medicine, Haiti '62, Hartford
*Fenn, J. E., Yale '61, New Haven
Fenney, P. W., Tufts '31, Newington
Fenster, M., S. U. N. Y. '63, Norwalk
*Fenton, R. H., Lausanne '57, New Haven
Ferando, L. J., Bologna '62, New Haven
*Ferguson, H. K., N. Y. U. '32, Waterford
*Ferfuson, J. F., Jr., Yale '40, Wallingford
*Fernand, E. G., Yale '55, Danbury
Feroleto, G. J., Vermont '59, Stratford
Ferranti, R. D., Rome '52, North Haven
*Ferrari, D. A., Columbia '63, Manchester
*Ferraro, R. W., Creighton '63, Waterbury
*Ferrero, V., Catholic Univ. Rome '68, Hartford
*Ferris, J., Columbia '43, New Milford
Fessel, J. M., Yale '63, New Haven
Feuer, C. R., New York Univ. '62, Stamford
Feuer, M. W., Albert Einstein '69, Hartford
Feuer, P. M., N. Y. Med. Coll. '70, Fairfield
*Fezza, A. J., New York '65, Hamden
*Fezza, M. L., New York '54, Hamden
Fialkoff, R. Havana-Cuba '48, Manchester
Fiducia, J. P., Queen's Un. Belfast '65, Middletown
*Fieldman, A., Tufts '51, Hartford
*Fierberg, A. A., Pittsburgh '49, Hartford
*Fierman, L. B., Western Reserve '46, Portland (New Haven County)
*Figueroa, F. J., Mexico '50, Enfield
Filer, H. L., Jr., Yale '46, New Haven
*Filewicz, S. P., N. Y. Med. Coll. '59, New Britain
*Filson, R. M., Queen's '15, West Hartford
*Fincke, C. L., Harvard '28, Stamford
*Fine, B., Jefferson '32, Stamford
*Fine J., Pennsylvania '31, Stamford
Fine, N. L., Downstate Med. Ctr. '64, Derby
Fink, H. D., Louisville '54, Milford
Fink, M. E., St. Univ. New York '57, Guilford
Finkelstein, J., Un. Pennsylvania '60, Sharon
*Finkelstein, W., Harvard '34, Waterbury
*Finlay, J. R., Hahnemann '46, Greenwich
*Finn, A. J., Jr., Jefferson '60, Torrington
*Finn, F. W., Columbia '38, Greenwich
Finn, J. E., Georgetown '64, Waterbury
*Finnie, J. N., Un. Alberta '63, Torrington
Finseth, F. J., Harvard '66, New Haven
*Fischbein, C. A., S. U. N. Y. '70, Waterbury
*Fischbein, F. I., N. Y. Med. Coll. '63, Middletown
*Fischer, D. G., Vermont '57, Hamden
*Fischer, D. S., Harvard 55', New Haven
Fischer, J. J., Harvard '61, New Haven
Fischer, N. R., Universidad de Chile '69, Bloomfield
Fischl, R. A., Durham, England '51, Danbury
*Fishbone, G., Univ. Sheffield '58, Hamden
Fisher, L. C., Columbia '55, Stamford
*Fisher, M., L. I. Coll. Hosp. '20, Greenwich
Fisher, R. L., Columbia '40, Sharon
*Fisher, R. L., Yale '59, Hartford
*Fisher, W. H., Jr., Tufts '58, Waterbury
Fishman, R. S., Geneva '56, Hartford
Fiskio, P. W., Yale '27, East Haven
Fitzgerald, J. R., Yale '57, East Haven
Fitzgerald, T. S., Vermont '68, Stamford
Fitzpatrick, E. E., Maryland '15, St. Petersburg, Florida (New Haven County)
*Fitzpatrick, E. J., McGill '42, New Haven
*Flagg, J. A., Temple '51, Bridgeport
*Flagg, S. V., Columbia '62, New Haven
Flaherty, M. V., Georgetown '43, Hartford
Flamm, G. H., Long Island '43, New Haven
Flanagan, E. P., Univ. Coll. Dublin '58, Manchester
Flanagan, J. A., Georgetown '67, Middletown
*Fleck, S., Harvard '40, New Haven
Fleisch, M. C., Tufts '40, West Hartford
Fleisher, P., Western Ontario '44, Bridgeport
*Fleisher, P. R., Basle '58, New London
Fleming, R. J., Tufts '56, Stamford
*Flemister, A. S., Howard '54, Bridgeport
Flescher, R., Harvard '61, Hartford
Fletcher, R. G., Harvard '53, Colebrook
Flint, J. F., Columbia '66, Waterbury
*Floch, M. H., New York '56, Norwalk
Flom, L., N. Y. U. '50, Fairfield
Flores, J. C., Cordoba Nat'l. Un. '60, Ansonia
Flores, P. G., Un. Santo Tomas '63, Bristol
Flores, S. E., Un. Nuevo Leon '68, Meriden
*Flynn, C. T., Jr., Yale '43, Meriden
Flynn, E. J., Long Island '43, Norwalk
*Flynn, F. J., Virginia '43, Newington
*Flynn, H. A., Yale '27, New Haven
*Flynn, J. B., Jefferson '44, Meriden
Flynn, J. D., Georgetown '64, Willimantic
*Flynn, J. H., Yale '45, New Haven
*Flynn, T. G., Georgetown '59, New Canaan
Flynn, W. H., Maryland '16, Bristol
Fogel, D. H., Duke '38, Greenwich
Fogelman, H., Lausanne '52, Stamford
*Fogg, L. B., Washington '60, East Hartford
*Foley, F. X., Boston '34, Fairfield
*Folk, J. J., Georgetown '65, New Britain
*Fons, A. L., III, Yale '57, West Hartford

Foohey, F. C., Laval '43, Hartford
*Foote, F. M., Yale '33, Wethersfield
*Forbes, J. D., Temple '64, Southbury
*Force, B. R., N. Y. Med. Coll. '42, Groton
Ford, J. R., Albany '64, Windsor
*Forman, B. H., Downstate '68, New Haven
Forman, J. B., Yale '39, New Haven
Forman, M. A., Un. Wisconsin '64, Stamford
*Formica, J. J., Tufts '55, New Britain
*Fornshell, R. P., Harvard '52, Danbury
*Fortier, A. J., McGill Univ. '72, Hartford
Fortin, V. L., Jr., Howard '59, Hartford
*Foss, B. A., Boston '54, New London
*Foster, J. H., Columbia '54, Hartford
*Foster, J. H., Pennsylvania '17, Lewisburg, Pennsylvania (New Haven County)
Foster, K. W., Jr., Tufts '57, West Hartford
Fote, J. J., New Jersey '70, West Hartford
Fournier, R. E., Tufts '50, New Haven
*Fowler, G. A., Columbia '40, Santa Fe, New Mexico (Litchfield County)
*Fowler, R. N., Columbia '34, Ramsey, New Jersey (New London County)
Fox, B. M., Tufts '55, Hartford
Fox, E. F., N. Y. Med. Coll. '58, Bristol
*Fox, G. G., Harvard '34, Meriden
*Fox, H. J., Hahnemann '52, Bridgeport
*Fox, J. C., Jr., Johns Hopkins '20, West Hartford
Fox, M., Geneva '60, Stamford
*Fox, M. I., Cornell '53, Milford
*Foye, G. J., Un. Coll. Dublin '65, Brookfield
*Fraknoi, J., Pazmany Peter Univ. '34, Wallingford
Francescon, S. D., Georgetown '68, Meriden
Francis, H. L., Howard '48, Waterbury
Franco, J. E., Tufts '40, Hartford
*Frank, H. D., Harvard '50, Bridgeport
*Frank, L. M., Pennsylvania '45, West Hartford
Frank, R. D., U. C. L. A. '65, Greenwich
Frank, S. M., New York Med. '73, New Haven
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Franklin, D. N., Columbia '56, Wilton
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Frederickson, R. W., N. Y. Med. Coll. '51, Hartford
*Freedman, J. K., Tufts '55, New Haven
*Freedman, M., Tufts '32, New Haven
Freedman, M. E., N. Y. Med. Coll. '47, Hartford
Freehill, P. J., Chicago '65, New Haven
Freeman, D., Yale '24, New Haven
Freeman, J. J., Temple '33, Storrs (Windham County)
Frenkel, H. H., Boston '52, Bridgeport
Freye, H. B., Duke '59, Mystic
*Freymann, J. G., Harvard '46, Hartford
*Friedberg, I. H., Tufts '37, Newington
*Friedman, C. R., Cornell '46, New Haven
Friedman, F. P., Albert Einstein '67, Norwich
Friedman, M. A., Univ. Michigan '63, Stamford
Friedman, N. H., Tufts '33, Stratford
Friedman, R. M., Puerto Rico '67, Willimantic
*Friedman, S. I., Tufts '68, Meriden
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*Friel, P. B., National '50, West Hartford
*Friend, A. E., Queen's '22, Manchester
*Friend, H. B., Queen's Univ. Canada '59, Hartford
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*Fromm, S. M., Texas '48, Bridgeport
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Fuchs, H. M., Un. Heidelberg '67, Norwalk
Fugal, J. P., S. U. N. Y. '67, Woodmont
Fuhrmann, J. M., Long Island '43, Woodbridge
Fulchiero, E. A., Turin '40, New London
*Fuldner, R. V., Columbia '33, New Haven
*Fuller, L. G. A., Un. Heidelberg '65, Waterbury
*Furniss, W. E., Tufts '40 Bristol
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*Gacso, W. J., Tufts '62, Fairfield
Gaffney, J. J., Loyola '30, Danbury
Gaffney, R. E., N. Y. Med. Coll. '52, Fairfield
*Gagliardi, J. M., Jr., Jefferson '60, Derby
Gagnon, P. M., Un. Ottawa '64, East Hartford
*Gahm, N. H., Tufts '61, Hartford
Gaines, G. A., Women's Med. Coll. '51, Waterbury
Gaines, J. D., Stanford Un. '66, New Haven
Gaito, R. A., Yale '58, New London

Galasyn, V. D., Un. Tennessee '65, Canterbury
*Galen, J. H., Long Island '42, Derby
Galen, M. A., Hahnemann '67, Hartford
*Galinsky, D., Tufts '35, Hartford
Galland, L. D., New York Un. '68, Winsted
*Gallivan, J. N., Tufts '35, Wethersfield
*Gallo, E. P., Jefferson '65, Winsted
*Gallo, F., Jefferson '34, Winsted
*Gallo, G. A., N. Y. Med. '63, Greenwich
Gallo, S. J., Maryland '57, Middletown
Galloway, J. A., Vanderbilt '62, Torrington
*Galloway, S., Bowman Gray '65, New Haven
Gallup, J. W., Tufts '55, Sharon
Galvin, J. R., Tufts '64, Farmington
Gambarini, A. J., Buenos-Aires '50, Hartford
*Gammill, J. F., Columbia '48, Darien
Gandel, P. N., Tufts '64, Bloomfield
*Gandy, R. A., Virginia '27, Stamford
Ganesan, M., Un. Ceylon '69, Milford
*Ganguli, P. C., Calcutta Un. '60, Middletown
*Garb, A. E., St. Univ. New York '55, Cos Cob
Gardner, C. W., Jr., Chicago '48, Fairfield
Gardner, S. M., Colorado '32, Fairfield
Gargano, P. A., Loyola-Stritch '68, Bridgeport
Gariepy, J. A., Yale '54, Bridgeport
Garofalo, G. A., Louvain '58, Bridgeport
*Gaorfalo, M. L., Naples '35, East Haven
*Garrell, M., Vermont '52, Fairfield
Garrity, J. D., Georgetown '57, Monroe
Garver, E. M., Georgetown '70, Bridgeport
Gates, P. J., New York Med. Coll. '72, Ledyard
Gates, W. L., Syracuse '44, Wallingford
Gaudio, A. R., Yale '63, Hartford
Gaynes, P. M., St. Univ. New York '63, Fairfield
Gaynor, E. B., Downstate Med. Sch. '66, Norwalk
Gazi, G. R., Dacca Med. Coll. '68, Wethersfield
*Geanuracos, G. J., Long Island '44, Bridgeport
Geary, F. L., Georgetown '63, Hartford
Geary, W. J., Georgetown '64, Hartford
*Gedeon, P. E., Beirut '45, Waterbury
Geer, E. T., Temple '44, Stamford
Geetter, A. L., Pennsylvania '67, Bloomfield
*Geetter, D. M., Jefferson '59, Hartford
*Geetter, I. S., Jefferson '29, Hartford
*Gefter, W. I., Univ. Penn. '39, Stamford
*Geha, A. S., Am. Un. Beirut '59, New Haven

*Gencarelli, A. F., Buffalo '39, Branford
*Gens, J. P., Yale '37, Norwalk
*Gentile, A. L., Boston '29, New Haven
*Genvert, H., Yale '36, Norwalk
Geoghegan, J. W., New York Med. Coll. '50, New Britain
Georgakis, N. G., N. Y. Med. Coll. '58, Norwalk

George, A. B., Athens '54, Hartford
George, L., Madurai Med. Coll. India '69, Enfield
*George, R. C., Yale '66, Norwalk
George, S. P., Madras Med. Coll. '65, Enfield
Gerber, E., Jr., N. Y. Med. Coll. '51, Naugatuck
*Gerber, J. S., Heidelberg '65, Hartford
Gerber, W. H., Heidelberg '65, West Hartford
*Gerent, W. P., Hahnemann '47, West Hartford
*Gerity, P. J., South Carolina '46, New London
German, J. N., Yale '62, New London
German, W. J., Harvard '26, New Haven
Gerow, G. H., Toronto '24, Westport
Gersten, S. P., Colorado '67, Middletown
*Gerster, J. W., Columbia '44, Greenwich
*Gerz, H. O., Dusseldorf '53, Middletown
*Getnick, R. A., Yale '68, Waterbury
Gettings, J. A., Jefferson '16, New Haven
Gevalt, F. C., Jr., Columbia '40, Sharon
Gfeller, R. J., Georgetown '58, Thompsonville
Ghabrial, S. L., Ein-Shams Un. '53, Manchester
*Ghaussy, A. A., Hamburg '62, Portland
Ghazi-Saidi R., Univ. Tehran '66, Enfield (Tolland County)
Ghofrany, F. N., Pahlavi Un. '65, Hamden
Ghofrany, S., Yale '72, Hamden
Gianetti, C. D., S. U. N. Y. '65, Bridgeport
Gianetti, D., Louvain '72, Bridgeport
*Gianfranceschi, G. R., McGill '48, Danbury
Giangrasso, A. E., Creighton '58, Trumbull
Giardi, L. P., Vermont '48, Hartford
*Giardina, D. D., N. Y. Med. Coll. '50, Norwalk
*Giarnella, E., Modena '53, Hartford
Gibbons, J. M. Jr., Georgetown '58, Hartford
*Gibney, R. A., Univ. Bologna '69, Waterbury
*Gibson, D. W., George Washington Univ. '71, New Haven
Gibson, F., McGill '41, New Haven
*Gibson, F. D., Syracuse '35, Hartford
*Gibson, L. W., Tufts '62, Willimantic
Giddings, J. C., Vermont '43, New Bern, North Carolina (New Haven County)
Giertz, W. E., Georgetown '50, New Britain
*Gilbert, R. K., Cambridge '54, Waterbury
*Gildea, M. A., Buffalo '24, Bridgeport
*Giles, N. W., Vermont '21, Stamford
Gilgore, S. G., Jefferson '56, Darien (New London County)
Giligian, J., St. Univ. N. Y. '53, Elmwood
*Gill, A. J., N. Y. S. U. '62, Fairfield
*Gill, N. P. Georgetown '52, Bridgeport
*Gillcash, R. S., Yale '61, Willimantic
*Gilligan, R., Loyola-Stritch, '74, Stamford
*Gilman, R. L., Harvard '29, Storrs (Windham County)
Gilmartin, D., Queen's Univ. Belfast '56, Norwich
Gilmore, J. M., Med. Coll. Pennsylvania '72, Bridgeport
*Giobbe, M. E., Tufts '29, Torrington
Gionfriddo, J. R., Georgetown '51, West Hartford
Giosa, N. A., Boston '52, Wethersfield
*Gipstein, E., Jefferson '31, New London
Giuliano, L. A., Tufts '32, Norwalk
*Giuliano, S., Tufts '30, Hartford
*Given, J. B., Cornell '50, Hartford
Gladstone, T. M., Vermont '68, New Britain
Glaser, G. H., Columbia '43, New Haven
*Glaser, W., Tufts '38, New Haven
*Glass, H. L., Vanderbilt '49, Bristol
Glass, M. K., Harvard '55, Bridgeport
Glass, W. H., Duke '37, Hartford
*Glass, W. I., Cornell '38, Bridgeport
Glasser, M., New York St. Univ. '61, Willimantic
*Glasser, S. T., McGill '28, Niantic
*Glassman, H. H., Indiana '56, Hartford
*Glassman, I., N. Y. Med. Coll. '51, New Haven
Glassman, R. M., Univ. Aberdeen '69, Waterbury
Glaubman, H. M., Yale '27, Hartford
*Glazer, M., Tulane '22, New Haven
*Glenn, J. S., Cornell '65, Torrington
*Glenn, W. W. L., Jefferson '38, New Haven
*Glenney, C. C., Tufts '52, Norwich
*Glickman, M. G., Washington Un. '63, New Haven
*Glike, F. P., Yale '41, Meriden
*Gloetzner, H. J., Temple '41, Norwalk
Glucksman, M. L., Washington '59, Danbury
Glugover, D. B., Chicago '62, Willimantic
Goco, E. S., Un. Santo Tomas '62, Cheshire
*Codar, T. J., Tufts '56, Hartford
Godfried, M. S., Yale '36, Woodbridge
Godlash, K. M., Georgetown '61, Hartford
Godley, J. A., Yale '62, Orange
Goehausen, M. C., St. Louis '47, Westport
*Goerner, J. R., Yale '43, Watertown
Goetcheus, J. S., Western Reserve '64, Essex
Goetsch, J. B., Rochester '38, New Haven
Goff, C. W. Un. Pennsylvania '74, Essex
Goffinet, S. B., Johns Hopkins '60, Woodbridge
Gofstein, R. M., Yale '51, Stamford
*Golbey, R. B., N. Y. U. '49, Stamford
Gold, B., State Univ. New York '57, Hartford
Gold, H., Lausanne '60, Hartford
Gold, H. C., Zurich '53, Newington
*Gold, J. D., Un. Tennessee '68, New Haven
Gold, L., Vienna '36, Stamford
*Gold, L. H., N. Y. Med. '32, Hartford
*Goldberg, I. S., Creighton '33, Torrington
Goldberg, M. H., Albany '61, Hartford
*Goldberg, M. M., Ottawa '54, Danbury
Goldberg, P. A., New York Med. Coll. '67, Stamford
*Goldblatt, J. S., Med. Coll. of Virginia '67, Norwich
*Goldblatt, P. B., Pennsylvania '65, New Haven
Golden, A. J., Yale '50, Wethersfield
*Goldenberg, A., Boston '54, West Hartford
*Goldenberg, I. S., Boston '51, New Haven
*Goldenberg, J. J., Dalhousie '26, Hartford
*Goldenberg, P. T., Boston '46, Hartford
Goldenring, H., N. Y. U. '49, Branford
Goldenthal, C., Yale '44, Hartford
Goldenthal, S., Yale '51, New Haven
Goldfarb, J., Texas '50, Stamford
*Goldfarb, S. L., Milan '38, Stamford
Goldman, A., Zurich '53, Danbury
Goldman, G., Yale '10, Woodmont
Goldman, P. H., Geneva '57, Hartford
Goldstein, J., Med. Acad. Lodz '48, New Haven
*Goldstein, L. H., Univ. Penn. '68, Danbury
*Goldstein, P. S., Yale '49, New Haven
Goldstein, W. B., Washington '61, Danbury
*Goldys, F. M., Tufts '26, Danbury
*Golia, U. V., Long Island '45, New Haven
Golkar-Sisani, F., Teheran '65, Manchester
*Golino, E. F., Rochester, '36, East Hartford
Golub, G. R., Tufts '60, Hartford
Gonzalez, C., Un. Puerto Rico '54, New Haven
*Good, P. S., Yale '45, Waterbury
*Good, R. C., Columbia '42, Waterbury
*Goodhue, P. A., Vermont '58, Stamford
Goodman, A. H., State Univ. N. Y. '57, New Haven
Goodman, D. T. H., Un. Santo Tomas '58, Meriden
Goodman, J. L., Ottawa '60, Meriden
Goodman, S. E., Cornell '53, Norwalk
*Goodrich, A., Indiana '41, Bridgeport
*Goodrich, I., Med. Coll. Georgia '64, New Haven
Goodrich, W. J., Albany '39, Vero Beach, Florida (Fairfield County)
*Goodyer, A. V. N., Yale '42, New Haven
Gordon, B. D., Maryland '51, Bridgeport
*Gordon, E., Vienna '35, Middletown
Gordon, G. L., Columbia '47, Stamford

Gordon, J. M., Upstate Med. Ctr. '67, Danbury
*Gordon, M. E., Yale '46, New Haven
Gordon, R. S., Columbia '46, New Haven
*Gordon, Y., Tufts '48, West Hartford
*Gorham, G. V., Michigan '30, Norwalk
Gorin, M., Rochester '60, Middletown
*Gorman, A. T., Albany '57, Hartford
Gorman, D. J., Georgetown '62, Hartford
Gorun, G., Bucharest-Romania '48, Stamford
Goss, J. D., Jr., Southern California '49, Kent
Gossart, R. M., Univ. Louvain Belgium '60, Bridgeport
Gosselin, A. G., Tufts '53, Jewett City
*Gossling, H. R., Temple '47, Hartford
Gotay-Rodriguez, V. M., Un. Puerto Rico '71, Waterbury
Gott, P., Tulane '62, Lakeville
Gottlieb, F. I., Johns Hopkins '62, New Haven
*Gottlieb, M. B., N. Y. U. '64, Meriden
Goubran, M., Ein-Shams Un. '62, Oxford, North Carolina (New Haven County)
*Gould, M. M., Tufts '31, Hartford
*Gourlie, H. W., Harvard '31, Thompsonville
Gouterman, I. H., S. U. N. Y. '71, New Haven
*Goyette, R. P., Georgetown '61, Putnam
Grace, T. W., Georgetown '63, Hartford
*Graf, T. M., Cambridge, England '70, Hartford
*Graffagnino, P. N., Tulane '51, West Hartford
Graham, A. J., Tufts '60, New Haven
*Graham, J. R., Pennsylvania '61, Branford (Hartford County)
Graham, R. A., Univ. Coll. Dublin '55, Mystic
*Gram, P. B., Rochester '52, Manchester
Granger, D. P., Univ. Pennsylvania '54, Bridgeport
Grann, V. R., N. Y. Med. Coll. '62, Stamford
Grant, J. M., Columbia '49, Bridgeport
*Grant, R. F., Albany '38, Cromwell
*Granville, N. B., State Univ. N. Y. '52, Windsor
Gratz, C. M., Toronto '23, Port Washington, New York (Fairfield County)
Grauer, L. E., Yale '68, New Haven
*Gray, C. H., Stanford '48, Old Greenwich
*Gray, P. H., Columbia '62, Stamford
Gray, P., Tulane '37, Portland
*Graydon, R. J., II, Albany '62, Hartford
Grayer, D. I., Albert Einstein '64, Bridgeport
Grayson, D. R., New Jersey '63, Hartford
Graziano, A., Rome, Italy '49, New Haven
*Green, R. H., Johns Hopkins '38, Madison (Middlesex County)
Greenaway, M. D., Fac. Med. U. Sydney, Australia'67, Haddam
*Greenberg, A., Long Island '32, Old Saybrook
*Greenberg, A. D., Rochester '60, New Haven
*Greenberg, I. M., New York '55, Waterbury
Greenberg, R. D., Univ. of Michigan '67, Vernon (Hartford County)
*Greenblatt, H. J., Vermont '36, New Britain
Greenburg, J. L., Un. Illinois '66, Westport
*Greene, G. S., Harvard '39, Hartford
Greene, L. A., Boston '60, Norwich
Greenfield, M., N. Y. U. '50, Danbury
Greengold, J. B., St. Louis '73, Naugatuck
*Greenhouse, B., Yale '21, New Haven
*Greenhouse, H. R., N. Y. Med. Coll. '44, Hamden
*Greenspan, R. H., Syracuse '48, New Haven
Greenwald, W. F., Johns Hopkins '50, New Haven
Greiner, G. F., Vanderbilt '40, Kent
*Grendon, D. A., Harvard '28, Sharon
*Gretsch, B. J., Pennsylvania '73, Newtown
*Grey, N. J., S. U. N. Y. '64, Hartford
*Griffin, D. P., Jefferson '14, Bridgeport
*Griffin, J. C., Dublin '55, Norwich
*Griffin, W. M., St. Un. New York '62, Greenwich
Griffith, J. J., St. Un. New York-Downstate '52, Norwalk
Grigas, J. E., Tufts '36, Basking Ridge, New Jersey (Fairfield County)
Grillo, W., Rochester '38, Willimantic
*Griswold, D. M., Boston '65, Willimantic
Griswold, E. M., Yale '32, Glastonbury
*Griswold, M., Yale '25, Old Lyme
*Griswold, M. T., Tufts '05, Torrington
Gritzmacher, R. O., Wisconsin '63, Old Saybrook
Grody, M. H., Pennsylvania '46, Hartford
Gromults, J. M., Jr., New York Univ. '58, Stamford
Groome, D. J., Un. Ct. Health Ctr. '73, Meriden
Gross, E. M., N. Y. U. '59, Farmington
*Gross, N. D., Creighton '49, Hartford
Grossman, B. A., Georgetown '59, Norwalk
*Grossman, D. S., Un. Ghent '71, Manchester
Grossman, E. T., Albert Einstein '63, Fairfield
Grossman, J. H., Rochester '41, Bridgeport
Grossman, R. S., St. Louis '52, Newtown
Grundy, G. W., Rochester '70, Orange
*Gruskay, F. L., Yale '54, Milford
*Gryboski, R. A., Yale '65, New Britain
Gryboski, W. A., Yale '56, New Britain
*Grycz, H. J., St. Andrews '59, Cheshire
Gualtieri, M. V., Tufts '43, Waterbury
Guardino, J. J., Vermont '62, Manchester
*Gudernatch, G. S., Cornell '39, Sharon
*Guida, F. P., Yale '34, New Haven
Guida, P. C., S. U. N. Y. '72, New Haven
Guigui, A., Univ. Paris '53, Ridgefield
Guigui, C. B., Dusseldorf '53, Ridgefield
*Guillette, W., Tufts '53, Hartford
Guinan, D. A., Vermont '48, Manchester
Gulash, J. R., Marquette '40, Bridgeport
Gulliver, A. G., Jr., New York Med. Coll. '59, Torrington
Gundersen, C. A., Boston '63, Glastonbury
*Gura, G. M., Loyola '31, Southington
Gurwitt, A. R., Yale '57, New Haven
*Gurwitz, J., Tufts '38, Bloomfield
*Guss, L., Oklahoma '41, Norwich
Gustafson, W. E., Yale '49, East Hartford
*Gutierrez, T. G., Univ. Philippines '58, Meriden (Hartford County)
Gutkowski, T. J., Albany '64, South Windsor
*Guttenberg, I., Yale '60, Meriden
Guttman, T., Prague '39, Bridgeport
Guzman, P. S., Philippines '61, Wallingford
Haber, M., N. Y. Med. '63, Rockville
*Haberlin C. E., Med. Coll. Va., '24, Stratford
*Habib, N. I., Univ. of Cairo '55, Derby
Hackbarth, C. J., Louvain '64, Old Lyme
Haddad, F. M., Yale '43, Ansonia
Haeseler, F. D., Downstate '71, Guilford
Haghighat, A., Tehran '55, Bridgeport
Haight, B., State Univ. N. Y. '71, Vernon
Haine, J. W., Albany '43, Stamford
Haines H. L., Johns Hopkins '39, New London
*Hajek, J. V., Harvard '65, Sharon
*Haksteen, J. J., Georgetown '58, Hartford
*Hale, S. D., Columbia '65, Willimantic
*Hale, V. A., Texas '22, Sarasota, Florida (New London County)
*Haley, J. C., Yale '40, Hamden
Hall, F. M., N. Y. Med. Coll. '56, Hartford
Hall, M. I., Edinburgh '34, Bristol
Hall, M. N., Albany '48, Niantic
Hall, W. A., Harvard '56, Middletown
*Hall, W. C., Pennsylvania '30, West Hartford
Hall, W. E., Yale '25, Meriden
Halligan, T. J., Vermont '63, Hartford
*Halloran, J. V., Boston Univ. '36, Strarford
*Hamaty, D., Hahnemann '53, Bridgeport
Hamblin, W. C., State Univ. N. Y. '52, Windsor

Hambly, R. G., Utah '69, Hamden
*Hamilton, C. R., Jr., Jefferson '49, Manchester
Hamilton, G. L., J., Tufts '44, West Hartford
*Hamilton, T. S., Wayne '39, Hartford
Hamlin, C. H., Harvard '41, Hartford
Hamlin, N. P., Harvard '72, Winsted
Hamm, E. V., Univ. of Louvain '70, Southbury
Hampton, W. H., Syracuse '54, Greenwich
Hampton, W. R., State Univ. New York '59, Simsbury
Handler, S. L., Louisville '51, New Haven
*Haney, J. F. B., Yale '64, Storrs (Windham County)
*Hankin, E., Columbia P. & S. '62, Fairfield
*Hanley, H. C., Toronto '63, Bridgeport
Hanley, J. B., Jefferson '39, Bristol
*Hannan, W. S., Harvard '45, Hartford
Hansen, T. W., Harvard '60, New Haven
Hansen, W. H., N. Y. Med. Coll. '46, Stratford
Hanson, E. E., Baylor '63, Stamford
Hanson, T. M., Columbia '69, New Haven
*Happel, E., Washington Univ. '49, New Milford
*Hardenbergh, D. B., Harvard '34, Southport
Hardman, D. R. Indiana '63, Hartford
*Hardy, J. H., Columbia '58, Hartford
Hardy, R. E., Cornell '57, Greenwich
*Hare, E. T., Jr., Vermont '58, Milford
Harkins, J. A., N. Y. Med. Coll. '52, Norwichtown
*Harkins, R. W., St. Louis '61, Woodbury
Harness, J. H., National Un. Ireland '54, Darien
*Harris, B. R., Yale '22, West Haven
Harris, H. L., S. U. N. Y. Downstate '62, Stamford
*Harris, H. P., J., Duke '36, Fairfield
*Harris, L. D., Tufts '34, Hartford
Harris, R. L., N. Y. U. '59, Bloomfield
Harrison, A. M., N. Y. Med. Coll. '51, Stamford
Harrison, E. R., Yale '26, New Haven
*Harrison, M., Jefferson '29, Naples, Florida (New London County)
*Harrison, S. L., Washington '30, Southbury
Harrop, J. S., Jefferson '61, Avon
Harshbarger, J. E., Pennsylvania '55, Bridgeport
*Hart, H. H., McGill '22, Southbury
*Hart, J. C., Yale '30, New Haven
*Hart, R. W., Cornell '45, Hamden
Hart, W. E., Jefferson '49, Hartford
Hartman, F. B., Harvard '34, New London
Harton, M. R., Tufts '60, Danielson
Harty, J. E., Georgetown '37, Waterbury
*Harvard, B. M., Jr., Tulane '39, New Haven
*Harvey, C. C., Cornell '16, Middletown
*Harvey, E. R. Jr., Yale '41, Seymour
*Harvey, R. B., Cornell '45, New Haven
*Harvey, S. W., Cornell '46, Middletown
Harwin, S. M., New York '61, New Britain
*Harwood, C. W., Vermont '40, Middletown
*Haskins, D. M., Harvard '47, Greenwich
Hassan, K. A., Alexandria '52, Stamford
*Hasson, J., St. Un. New York '51, Hartford
Hau, K. H., Wuhan '56, Bridgeport
Haugh, J. D., N. Y. U. '52, Hartford
Havlicek, J. A., Queen's '63, Middletown
Hawkes, P. H. R., St. Bartholomew's Hospital '49, New Britain
Hawkins, C. V., Loma Linda '70, Greenwich
Hawkins, H. B., Harvard '66, Hartford
*Haxo, J. V., Yale '51, New Milford
Haydock, G. G., Harvard '45, Sharon
*Hayes, D., Harvard '51, New London
Hayes, J. R., Un. Coll. Cork '67, Willimantic
Hayes, M. A., Michigan '40, New Haven
*Hays, D. R., N. Y. U. '49, Washington
*Hazen, D. R., Harvard '33, Hartford
Healy, J. W., Tufts '55, Hartford
Healy, T. M., Columbia '41, Manchester
*Heap, L. D., St. George's Hosp. Med. Sch. '58, Southington
*Hebard, G. W., Cornell '36, New Canaan
*Hecht, H. L., Albert Einstein '62, Stamford
Heckelman, B. J., Bologna '70, Newtown
*Hecklau, E. F., N. Y. U. '54, Greenwich
*Hedberg, D. L., McGill '60, Hartford
Hedley, G. E., Heidelberg Un. '67, Norwalk
Heiger, A. A., Basel '59, Cheshire
*Heimann, W. G., Bern '56, Manchester
*Heinrich, W. D., Hahnemann '41, Torrington
Helfrick, F. W., Johns Hopkins '41, Manchester
Helfrick, S. M., Johns Hopkins '44, Manchester
*Heller, C. I., Columbia '68, Bridgeport
*Heller, S. F., Tufts '69, Groton
Heller, W., State Univ. N. Y. '60, Bridgeport
*Hellijas, C. S., Rochester '41, Wethersfield
Hellman, S., Syracuse '59, Boston, Mass. (New Haven County)
*Helvie, H. E., Oklahoma '60, Waterbury
Hemenway, C. G., Tufts '69, Bridgeport
Hendessi, H., Tehran '56, Manchester
Henisz, A. K., Warsaw, Poland '60, Sharon
Henken, E. M., Tufts '52, Hartford
*Henkle, R. T., Cornell '31, New London
*Hennessey, J. F., McGill '53, Meriden
Hennessey, J. G., Tufts '34, Bridgeport
Hennessy, J. J., Columbia '26, West Hartford
Henry, P. D., McGill '52, Derby (Fairfield County)
Henry, W. B., Albany '63, Glastonbury
*Hensley, R. V., Univ. Texas '62, West Hartford
*Hepburn, R. H., Harvard '39, Hartford
Herbert, E. A., Cornell '49, Willimantic
*Herbin J. T., Zurich '66, Fairfield
Herbordt, W. A., Berlin '46, Woodbridge
Herbstman, M. S., N. Y. Med. Coll. '72, Westport
Herman, E. B., Berne '56, Norwalk
Herman, M., Univ. Dublin '39, Bridgeport
Herman, R. S., Jr., Buffalo '46, Manchester
Hermann, J. H., Copenhagen '59, Norwalk
*Hermele, H. I., Albert Einstein '69, Fairfield
Hernandez, J. R., Cordoba Un. '69, Ansonia
*Herr, H. H., Tufts '49, New Britain
Herrera, N. E., Santo Domingo '50, Danbury
*Herrmann, A. E., Harvard '23, Waterbury
*Hersey, T. F., Tufts '37, New Haven
Hersh, S. B., Chicago, Med. Sch. '69, Waterbury
Hershey, D. D., Albany '50, Bristol
Hershman, H. H., Western Ontario '41, Bristol
Herzlinger, R. A., New York Med. Coll. '69, Bridgeport
Herzog, A., Pennsylvania '67, Hartford
*Hess, O. W., Buffalo '31, North Haven
*Hetzel, J. L., Yale '26, Waterbury
Hewetson, J. B., Cork Medical '57, Putnam
Hewett, W. J., Un. Buffalo '61, Hartford
*Hewitt, J. K., Boston '69, Hartford
*Hickcox, C. B., Tufts '38, Hartford
Hickmon, N., Meharry '59, Hartford
Hickox, D. B., Albany '62, Middletown
*Hicks, J. E., Tennessee '66, New Haven
Hicks, R. E., Munich '59, New Britain
*Hiden, R. B., Virginia '23, New Canaan
*Higgins, D. C., State Univ. N. Y. '55, New Haven
*Higgins, H. W., Tufts '32, Norwich
*Higgins, J. J., Georgetown '28, Enfield (New Haven County)
Higgins, K. E., Rochester '58, Fairfield
Hild, D. H., Un. Pennsylvania '62, Hartford
Hill, D. A., Yale '65, Hartford
Hill, J. M., Illinois '53, West Hartford
Hill, P. R., Marquette '50, Bridgeport
*Hill, T. M., Maryland '66, Hartford
*Hill, W. E., Jr., Temple '52, Naugatuck

°Hillemeir, H., N. Y. Med. Coll. '51, Farmington
°Hillis, W., Cornell '55, Greenwich
°Himelstein, M., Columbia '51, Hartford
Himelstein, S. C., St. Un. New York '65, Enfield
°Himmelsbach, R. K., Georgetown '57, Simsbury
°Hinchey, R. J., Tufts '21, Middlebury
Hines, A. H., Un. Pennsylvania '69, Danbury
Hinz, C. F., Jr., Western Reserve 51, Farmington
Hirschfeld, O. M., Tufts '31, Hartford
Hirschberg, M. S., Tufts '27, Bloomfield
Hobbie, R. J., Vermont '65, Fairfield
Hochberg, D. T., Johns Hopkins '62, Putnam
Hockman, H. J., UConn. '73, Farmington
Hockmuth, L. N., Tufts '42, West Simsbury
°Hoden, P. D., Univ. of Vermont '70, Waterbury
Hodgkins, C. H., Hahnemann '36, New Haven
Hofbauer, H. B., Penn '68, Wallingford
°Hoffer, J. M., Tufts '46, Ansonia
Hoffman, D., Univ. of Louisville '69, Middletown
°Hoffman, H. B., Northwestern '61, New Haven (Hartford County)
°Hoffman, J. B., Columbia '43, Greenwich
Hoffman, L. I., Albert-Einstein '66, Bloomfield
°Hoffman, W. A., State Univ. '53, Fairfield
°Hogan, A. F., N. Y. Med. Coll. '49, Putnam
Hogan, G. F., Yale '57, New Haven
°Hogan, J. M., Univ. Coll. Dublin '56, Waterbury
°Holden, J., Long Island '47, Derby
°Holden, W. W., N. Y. U. '47, Bristol
°Hollander, J. S., St. Univ. New York '60, Enfield
Hollander, M. E., Hahnemann '69, Meriden
Holley, M. R., Howard '61, New Haven
°Hollister, J. M., Cornell '58, Groton
Holtz, R. S., Vermont '28, West Hartford
Homer, D. R., Vermont '60, Danbury
Homza, L. R., Creighton '58, Bridgeport
Hook, R., Municipal Univ. Amsterdam '61, Hartford (New Haven County)
Hope-Ross, P. E., Nat'l. Ireland '53, Bridgeport
Horn, B., N. Y. U. '29, Bridgeport
°Hornblow, J. T., Albany '60, Hartford
°Horning, B. G., Harvard '28, Malaga, Spain (Hartford County)
Horowitz, B. J., Pennsylvania '59, Hartford
Horowitz, I., Vienna '37, Bridgeport
Horowitz, J. L., N. Y. Med. Coll. '49, Bridgeport
Horrax, T. M., Temple '46, Farmington
Horrigan, T. H., N. Y. U. '49, Glastonbury
°Horton, F. H., Yale '47, Manchester
Horton, P. C., Minnesota '68, Meriden
°Horton, W. H., Boston '40, Guilford
°Horwitz, M., Harvard '49, Manchester
Hosking, W. F., Queens Univ. '61, West Hartford
Hostnik, W. J., Johns Hopkins '54, New London
°Houck, J. H., Queens U. '49, Hartford
°Hough, P. T., McGill '32, Nova Scotia, Canada (Hartford County)
°Houle, R. T., Georgetown '32, South Windsor
°Houlihan, J. J., N. Y. Med. Coll. '46, West Hartford
°Houlihan, R. K., N. Y. Med. Coll. '54, New Haven
°Hourihane, M. J., Nat'l. U. Ireland '61, West Haven
°Howard, L. K., Minnesota '29, Hartford
°Howard, R. O., Virginia '61, New Britain
°Howard, W. O., N. Y. U. '32, East Orange, New Jersey (New Haven County)
°Howe, E. R., Columbia '46, Hartford
Howe, G. O., Colorado '50, West Hartford
°Howorth, B. M., Washington '25, Greenwich
°Hubbard, R. C., Cincinnati '46, Danbury
°Huber, H. C., Temple '46, Waterbury
°Huckabee, W. E., Univ. Texas Southwestern '49, Greenwich
°Hughes, C. T., Jr., Harvard '53, Hartford
Hughes, G. S., Indiana '44, Darien
°Hughes, W. F., Jefferson '48, Westport
Hull, C., Queens '55, Hartford
Hulme, S. A., Pittsburgh '45, Hartford
°Humphrey, C. B., Temple Univ. '65, Hartford
Humphries, R. H., Columbia '64, New Canaan
°Hunkemeier, E., N. Y. U. '33, Rowayton
Hunt, K. J., Case Western Reserve '70, New Haven
Hunt, M. L., Tufts '51, Tolland
°Hurowitz, R. B., Basel '59, West Haven
°Hurst, V. W., III, Yale '62, Woodbury (New Haven County)
Hurwit, T. C., Tufts '57, Bloomfield
°Hurwitz, G. H., Maryland '33, Hartford
°Hurwitz, M. R., Albany '64, Hartford
°Hurwitz, S., Long Island '49, New Haven
Hurzeler, M. A., Creighton '60, New Haven
Huss, G. R., Temple '49, Leonia, New Jersey (Fairfield County)
Husvet, F., Med. Sch, Univ. of Pecs. '51, Winsted
Huszar, T. G., Un. Budapest '63, Milford
°Huvelle, C. H., N. Y. U. '43, Torrington
°Hyland, F. J., Galway '54, Milford
Hyland, J., Nat'l. Un. Ireland '55, Hamden
°Hyun, J., Seoul '52, Hartford
Iacovino, J. R., Tufts '67, Norwalk
Iannotti, J. P., Naples '38, Plainville
°Iannotti, S., Un. Naples '68, Ansonia
°Iger, H. G., State Univ. N. Y. '62, Hartford
°Igersheimer, W. W., Tufts '44, Guilford
Ignace, S. J., Georgetown '30, New Milford
°Ill, K. C., N. Y. Med. Coll. '54, Plainville
Ill, M. F., New York '55, Bristol
°Immordino, P. A., Columbia '62, New London
°Imran, A. H., King Edw. Med. Coll. '67, Simsbury
Inder, H. A., McGill '51, Stratford
°Inkster, J. H., Cornell '30, Keene, New Hampshire (Fairfield County)
°Innes, J. W., Cornell '60, Greenwich
°Iodice, M. T., Freiburg '64, Bridgeport
Ippolito, R. J., S. U. N. Y. '73, North Haven
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°Ireland, E. F., Jr., Harvard '48, Bridgeport
°Irving, W. D., N. Y. Med. Coll. '52, Old Saybrook
°Irwin, H. H., Tufts '34, Margate, Florida (New London County)
°Irwin, J. B., Long Island '48, Torrington
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°Izard, M. W., Physicians & Surgeons '59, Hartford
°Izumi, E. M., Texas '50, Winsted
°Izzo, P. A., Vermont '46, Stamford
Jack, J. L., Yale '23, North Haven
Jackson, A. H., Yale '24, Southbury
Jackson, S. W., McGill '50, New Haven
°Jacobson, C. E., Jr., Cornell '35, Manchester
°Jacobson, H., Lausanne '62, New Haven
°Jacobson, J. J., Iowa '63, New Britain
°Jacuch, M., Ukraine '55, Hartford
°Jaeger, C. A., Duke '50, Greenwich (New Haven County)
Jaiven, S. J., N. Y. U. '40, Stamford
°James, L. P., Yale '27, Hartford
°James, W. R., Yale '44, Essex
Jameson, M. E., Edinburgh '52, Danbury
Jameson, T. P., Edinburgh '52, Danbury
°Jamharian, J., Un. Istanbul '53, Southington
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Jankowich, R. E., Harvard '55, Stratford
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°January, M. H., Yale '35, West Hartford
°Janzen, A. H., Kansas '38, Hartford

°Jarboe, E. J., Tennessee '60, New Britain
Jee, K. S., Seoul Nat'l. '62, Norwalk
Jennes, M. L., Tufts '38, Southbury
°Jennings, W. F., Rush '37, Groton (Hartford County)
°Jensen, G. O. F., New York '57, Bristol
°Jensen, P. B., London Univ. '52, Sharon
Jenusaitis, J. R., Tufts '47, Waterbury
Jeresaty, R. M., Beirut '54, Hartford
Jerrett, S. A., Un. Missouri '72, Norwalk
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°Job, G. G., Univ. Philippines '59, West Haven
°Johnson, C. W., Boston '45, Thompsonville
Johnson, D. E., Indiana Un. '72, Rockville
°Johnson, D. P., Yale '64, Middletown
°Johnson, D. W., Columbia '48, Hartford
Johnson, G. B., Jr., Boston '55, Bridgeport
°Johnson, H. K., Jr., Jefferson '58, New London
Johnson, J. C. Jr., Vanderbilt '44, Hartford
°Johnson, K. T., N. J. Coll. Med. '71, New Britain
°Johnson, M. E., Wom. Med. Coll. Penn. '57, New London
Johnson, P., Tufts '32, Hartford
°Johnson, S. A., Columbia '49, New Britain
°Johnson, T. H., Columbia '59, New Britain
Johnson, W. H. N., Howard '39, Westport
°Johnston, J. H., Long Island College '43, Wethersfield
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Jonas, G. Q., N. Y. U. '50, Fairfield
Jonas, S. L., Un. Michigan '50, Wilton
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°Jones, E. E., Med. Coll. Virginia '52, Farmington
°Jones, E. K., Columbia '34, Fairfield
Jones, J. F., Columbia '43, Danielson
°Jones, M. B., N. Y. U. '41, Norwalk
Jones, R. F. III, Virginia '61, Hartford
Jones, W. D., III, Jefferson '66, Hartford
Jones, W. N., Rochester '50, New London
°Jordan, R. H., Virginia '33, New Haven
°Josel, M., Chicago '52, Hartford
°Joseph, J. L., Port-au-Prince '54, Norwich
°Joseph, L. G., Jefferson '39, New Haven
Josephson, N. D., Yale '45, Rockville
Josephson, R. P., S. U. N. Y. '67, Simsbury
°Joslin, S. L., Yale '43, Fairfield
Jou, L. J. C., Taipei Med. Coll. '70, Stafford Spring
Jovell, J. W., Tufts '39, Danbury
Joy, R. C., McGill '51, Danbury
Jung, R. M., Tufts '62, New London
°Kadish, J. A., Queen's '60, Norwich
°Kadish, M. E., Geneva '55, Norwich
Kaess, K. R., Harvard '44, Winsted
°Kahaner, H. A., Tufts '63, Manchester
Kahn, C. S., Harvard '58, New Britain
°Kahn, D., State Univ. N. Y. '53, Meriden
Kalaman, F. J., Georgetown '41, Norwalk
°Kalams, Z. S., Athens '53, Norwich
Kalayjian, D. B., Univ. Chicago '67, Middletown
°Kalett, J., Jefferson '28, Sarasota, Florida (Hartford County)
Kallfelz, A., New York '55, Hartford
°Kallick, C. J., Jefferson '58, Westport
°Kamens, E. A., Vermont '51, Fairfield
Kaminsky, D. M., N. Y. U. '63, Orange
Kamm, H. J., S. U. N. Y. Upstate '73, New Milford
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°Kanter, D. M., Long Island Coll. of Med. '49, Stamford
°Kantharaj, A. J., Christain Med. College '56, Norwich
°Kaplan, B. J., Vermont '49, Hartford
°Kaplan, D. H., N. Y. Med. '55, New London
Kaplan, H., N. Y. Med. Coll. '44, New Britain
Kaplan, H. P., Yale '63, Meriden
°Kaplan, J. R., New York '68, Southington
°Kaplan, L., Baylor '36, Bridgeport
Kaplan, N. R., S. U. N. Y. '73, Glastonbury (Fairfield County)
°Kaplowe, J. L., N. Y. Med. Coll. '30, New Haven
Karas, L. M., Tufts '57, Stamford
°Kardos, J. A., Jefferson '51, Stamford
°Karlovsky, E. D., Albany '46, Orange
Karno, M. L., Tufts '55, New London
°Karns, R. E., Jefferson '50, Manchester
Karpe, R., Prague '24, Hartford
°Karsh, J. A., Beirut '46, Waterbury
°Kaschmann, J., Munich '22, West Hartford
Kashgarian, M., Yale '58, New Haven
°Kasper, R. F., Georgetown '58, Bridgeport
Kates, R. J., Columbia '70, Hartford
Katis, J. G., McGill Un. '60, New Canaan
Katis, L. U., McGill '57, Ridgefield
°Katz, A. J., Pennsylvania '62, Farmington
°Katz, D., Vermont '25, Laguna Hills, California (Hartford County)
°Katz, H., Harvard '21, Hartford
°Katz, I., N. Y. Med. Coll. '37, Meriden
Katz, J., Harvard '49, New Haven
Katz, M. E., Oklahoma '41, Norwich
Katz, R. M., Upstate Med. Ctr., '68, Derby
Katz, S. R., N. Y. U. '64, Fairfield
°Katzin, B., Johns Hopkins '43, Torrington
Kauders, J. T., Jefferson '62, Bridgeport
°Kauer, G. L., Jr., Cornell '37, Greenwich
°Kaufman, W., Michigan '38, Stratford
°Kaufmann, H. A., Michigan '54, Middletown
Kaunitz, P. E., N. Y. U. '38, Westport
°Kavirajan, V., Madras, India '66, New Milford
°Kavookjian, H. Jr., Beirut '50, Darien
°Kawecki, W., National Univ. '55, New Britain
Kay, C. J., S. U. N. Y. '60, Bridgeport
°Kay, F., Boston '58, Hamden
°Kay, R., Temple '45, Hartford
Kayal, F. A., New Jersey Coll. Med. '69, Brookfield
Kaye, D. E., Tufts '70, Bristol
Kaye, R. H., Johns Hopkins '65, Norwalk
Kaye, S. J., Un. Pittsburgh '69, Bristol
°Kazanjian, N. A., Hahnemann '45, New Haven
Keating, S. J. Jr., Georgetown '62, Simsbury
°Keddy, R. A., McGill '24, Pompano Beach, Florida (Fairfield County)
Keefe, A. D., N. Y. Med. Coll. '52, East Hartford
Keefe, R. B., Maryland '54, Windsor
Keefe, R. S., Boston '25, Wethersfield
°Keefe, W. P., Maryland '55, Hartford
Keegan, J. T., Maryland '55, Milford
°Keeney, R. R., Jr., Tufts '34, Manchester
°Keet, J. E., Long Island '47, Waterbury
°Keggi, K. J., Yale '59, Waterbury
Keleman, E., Budapest '25, South Laguna, Calif. (Fairfield County)
Kellan, C., Cluj '57, Wallingford
°Kelleher, J. H., Vermont '42, Norwich
Kelleher, M. J., N. Y. Med. Coll. '60, Bridgeport
Keller, B. R., S. U. N. Y. '65, Danbury
°Keller, D. J., Vermont '68, New Britain
°Keller, F., Long Island '43, Woodbridge
Keller, L., Tufts '26, Stamford
°Keller, N. W., Cornell '54, Greenwich
°Kelley, W. O., Johns Hopkins '37, Norwich
°Kellsey, D. C., Boston Univ. '47, Hartford
°Kelly, C. C., Johns Hopkins '14, Hartford
°Kelly, D. R., Albany '64, Hartford
Kelly, J. C., Queen's '28, Riverside
°Kelly, J. F., Tufts '50, Middletown

*Kelly, M. D., Tufts '50, Middletown
*Kemler, R. L., Yale '43, Hartford
Kemp, E. P. Tufts '25, Fairfield
*Kemp, W. W., Harvard '39, Stamford
Kenigsberg, N., Yale '39, Fairfield
*Kennedy, G. L., Tufts '50, Jewett City (Windham County)
*Kennedy, J. J., Jr., Boston '46, Windsor Locks
*Kenney, J. D., Boston '56, New Haven
Kenny, W. J., Dublin '60, West Hartford
*Kent, E. H., N. Y. U. '43, Greenwich
*Kenter, A. M., Ankara '51, Danbury
Keogh, R. J., Georgetown '57, Stratford
Kerin, R., Yale '47, Milford
*Kerin, W., St. Louis Coll. P & S '71, New Haven
*Kerr, R. J. N., Trinity Coll. Dublin '56, Clinton
Kerrigan, R., New York '62, Norwich
*Kerstein, M. D., Chicago '63, West Haven
Kertesz, J., Vienna '24, Hamden
*Kessel, L., Vienna '34, Wethersfield
*Kessler, F., Vienna '37, New Haven
*Kessler, W., Rochester '58, Westport
Keszler, K., Un. Louvain '67, Madison
*Keys, R. C., Kansas '27, Winchester, Kansas
(Fairfield County)
*Khachane, V. B., Calcutta Nat'l. Med. '63, New Haven
Khan, K., King Edward Med. Coll. '50, New Britain
*Khoshnood, F., Tehran Med. Sch. '65, Stamford
Khoury, A. E., Georgetown '60, Danielson
Khu, E. G., Sto. Tomas '63, New Haven
*Kiley, R. F., Yale '53, Hartford
Kiley, R. J., Virginia '66, Waterbury
*Kilga, L. A., Un. Heidelberg '66, Higganum
*Kilgus, J. F., Maryland '31 Avon (Litchfield County)
Kilhenny, C., N. Y. Med. '57, Danbury
Kim, C. A., Kyungpook Un. Korea '58, New London
Kim, C. C. S., Seoul Nat'l. Un. '60, New Haven
Kim, C. K., Boston '63, Manchester
*Kim, I. K., Seoul Nat'l. Un. '67, Meriden
*Kim, K., Seoul '52, New Haven
*Kim, K. S. C., Korea Univ. '64, Easton
*Kim, P., Nat'l. Taiwan Un. '65, Stamford
*Kim, Y. H., Seoul Nat'l. Un. '61, Easton
King, E. J., London Hosp. '43, Falls Village
(Fairfield County)
King, R. P., N. Y. Med. Coll. '57, New Haven
*King, S. A., Columbia '47, Stamford
Kingsley, S. W., Tulane, '70, Danbury
*Kingston, P. J., N. Y. Med. Coll. '50, Hartford
*Kinstlinger, R., Rochester '60, West Haven
Kirchner, J. A., Virginia '40, New Haven
Kirkpatrick, J. R., Baylor '69, Hartford (Windham County)
Kirsch, N., Long Island '40, West Hartford
Kish, L. H., Rochester '64, Bristol
Kiss, G. T., Cornell '51, Fairfield
Kitahata, L. M., Tokyo Imperial Univ. '47, New Haven
Kitchen, R. N., Un. Michigan '56, Old Greenwich
*Klare, R. E., Columbia '53, East Woodstock
*Klatskin, G., Cornell '33, New Haven
Klatsky, A. U., George Washington '59, Hartford
Klauber, G. T., Guy's Hospital, London '63, Newington
*Kleeman, J. A., Yale '46, Bethany
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*Klein, H. T., Illinois '40, Stamford
*Klein, J., Long Island '34, Hartford
Klein, J. J., St. Univ. New York '57, Norwalk
Klein, N. C., Cornell '60, Stamford
Kleinman, H. L., Buffalo '41, Bridgeport
*Klenoff, B. H., Tufts '69, Stamford
*Kligerman, S., Illinois '39, Hartford
Kligfeld, M., Albert Einstein '67, Derby
*Klimas, F. A., Vermont '54, Fairfield
*Klimek, R. J., S. U. N. Y. '66, New London
Klinger, S. Y., Indiana '54, Woodbury (New Haven County)
*Klipstein, A., N. Y. U. '65, Manchester
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*Kneale, H. B., Johns Hopkins '20, Fairfield
*Knight, H. F., Rochester '49, Hartford
Knights, W., Vermont '60, East Hartford
*Knirsch, A. K., Western Ontario '62, Groton
Knobelman, R. A., Pennsylvania '71, New Haven
Knowlton, A. H., Albany '66, New Haven
*Knox, A. E. H., Nebraska '47, Bloomfield
*Knox, K. R., Jefferson '46, Hartford
*Koch, L. W., New York '63, New Britain
*Koehler, P. B., Yale '48, Trumbull
Koenig, A. R., North Carolina '58, Cos Cob
Koenigsberg, D. N., Albert Einstein '66, New Haven
*Koff, A. M., Columbia '57, Avon
*Koff, M. S., Hahnemann '63, Hartford
*Koffler, A., Jefferson '34, Stamford
*Kogut, H. V., N. Y. Med. Coll. '43, Bridgeport
Koleshko, L. J., Maryland '42, Waterbury
Komninos, A., N. Y. S. '52, Willimantic
*Kondo, K., Keio, Un. Tokyo '63, Woodbridge
*Koops, H. J., Harvard '66, New Britain
Kopeloff, N., Albert Einstein '66, New Britain
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*Korn, F. E., N. Y. Med. Coll. '50, Middletown
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Koss, N., Yale '66, New Haven
Kostecki, R. J., N. Y. U. '61, Waterbury
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Kotch, A., Vermont '64, Danbury
*Kotch, P. I., Tufts '60, Newtown
*Kott, J. H., N. Y. U. '33, Harwinton
*Koufman, W. B., Tufts '35, New Haven
*Kra, S. J., Lausanne '60, New Haven
*Krall, I. H., Long Island '37, Hartford
Kramer, B., Maryland '56, Wallingford
Kramer, F. M., Lausanne '54, Cheshire
Kramer, R. A., Yale '55, Hartford
*Kramer, R. T., Wayne '56, Torrington
*Kramer, T., N. Y. Med. Coll. '62, Norwalk
*Kramm, W. A., Albany '51, Niantic
*Krasnogor, L. J., N. Y. U. '63, Stamford
*Krassner, L. S., Boston '56, New Haven
Kraus, G., Long Island '44, New Haven (Fairfield County)
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Krauthamer, M. J., St. Univ. New York '62, Darien
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Krenicky, P. T., Hahnemann '67, East Hartford
*Kresge, D. J., Temple '53, Collinsville
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*Krosnick, G., Jefferson '38, New Haven
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*La Bella, L. O., Columbia '25, Middletown
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LaCamera, R. G., Cincinnati '49, New Haven
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*LaForte, P., N. Y. U. '50, Stamford
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Lahman, J. E., Med. Coll. Georgia '70, Rockville
Lahvis, W. F., St. Univ. N. Y. '56, New Milford
Laken, P. C., Colorado '64, New Britain
*LaMastra, P. M., Maryland '60, Bridgeport
Lamb, E. S., Yale '55, West Hartford (New London County)
Lambe, M. J., Queen Univ. Belfast '63, Middletown
Lambe, T. P. Queens Univ. '61, Middletown
Landau, S. J., Yale '55, New Haven
Lande, S., Yale '74, New Haven
Landesman, R. H., Vermont '66, Stamford
Landow, S. S., Un. Heidelberg '66, Branford (Middlesex County)
Landry, A. B., Jr., Jefferson '56, Hartford
*Landwirth, J., S. U. N. Y. '61, Bridgeport
Landy, G., Case Western '63, Cheshire
*Langan, M. J., Columbia '46, Greenwich
Langenauer, B. J., Albert Einstein '64, Hamden
*Langhammer, H., Heidelberg '55, Norwich
*Langmann, R. D., Physicians & Surgeons '55, Hartford
*Langner, H. P., Yale '22, Milford
Langner, J. M., Un. Zurich '53, Southington (New Haven County)
Langou, R. A., Cordoba Univ. '65, North Haven
Laning, G. M., Michigan '10, Sharon
Lanzi, R. A., Temple '61, Orange
Lapenta, R. G., George Washington '37, Hartford
*LaPierre, A. R., Columbia '38, Norwich
LaPierre, W. W., Columbia '39, Norwich
Lapinski, L. S., Yale '50, Bridgeport
*Laplume, A. A., Montreal '24, Tamarac, Ft. Lauderdale, Florida (Hartford County)
*LaPorte, T. F. V., Boston '33, Bristol
Larkin, C. L., Jr., Columbia '46, Waterbury
*Larkin, J. C., Johns Hopkins '35, New Britain
*Larkin, J. I., Albany '57, Greenwich
*Larkin, J. T., Georgetown '30, Hampton
*Larson, A. L., Albany '36, Avon
*Larson, J. A., Northwestern Un. '53, Norwalk
Lashgari, M., Tehran '62, Hartford
Lasser, J. L., Boston '66, Meriden
Lassman, M. N., Rochester '68, Hartford
Lattanzi, W. E., Yale '55, New Haven
*Laubstein, M. B., S. U. N. Y. '56, Ansonia
Laudano, A. J., Tufts '47, New Haven
Lavietes, P. H., Yale '30, New Haven
*Lavietes, S. R., Baylor '49, New Haven
Lavin, W., Georgetown '71, New Haven
*Lavorgna, M. H., St. Louis '40, New Haven
*Lawlor, E. F., N. Y. Med. Coll. '59, Burlington
*Lawrence, G. J., New York Med. Coll. '63, Willimantic
Lawrence, J. J., Howard '57, Bridgeport
*Lawson, I. R., Aberdeen Un., Scotland '54, Danbury (Hartford County)
Lawson, J. P., Manchester, England '55, Derby
Lazarus, B. A., Univ. Maryland '68, Bloomfield
Lazor, M. Z., Columbia P & S '57, Hartford
Leach, C. N. Jr., Columbia '60, Farmington
*Lear, H. A., St. Louis '43, New York, New York (Hartford County)
*Lear, M., Yale '11, Palm Beach, Florida (New Haven County)
Leavy, S. A., Rochester '40, New Haven
*Lebhar, N. F., Columbia '39, Westport
Lebowitz, A. I., Hahnemann '66, Stamford
Lebowitz, W. B., Boston '56, Bridgeport
Lebson, R. E., Albert Einstein '64, New Haven
Lee, H. J., Yonsei, Korea '64, Bridgeport
*Lee, J. F., Cornell '46, Greenwich
*Lee, J. P., Nat'l. Defense Med. Ctr. '64, Middletown
*Lee, J. R., Queen's '24, Southbury
*Lee, K., National Defense Med. Ctr., China '64, Waterbury
Lee, K. J., Columbia '65, New Haven
Lee, M. A., Louisville '66, Fairfield
*Lee, N. H., Seoul Nat'l. Univ. '49, Bridgeport
Lee, S., Yonsei, Korea '63, Willimantic
Lee, W., Yale '41, Hartford
*Lee, W. B., Yonsei Un. '60, Norwich
Lee, W. K., Un. Hong Kong '67, Hartford
*Leeds, W. G., Long Island College '48, West Hartford
Lefkowitz, S., Lausanne '54, Waterbury
*Lefkowitz, L. A., S. U. N. Y. Downstate '64, Ridgefield
*Lehman, R. M., N. Y. U. '71, Waterbury
*Lehmann, W. B., Yale '63, Hartford
Lehmann, W. X., N. Y. Med. Coll. '43, Wilton
*Lehmus, H. J., N. Y. U. '43, Manchester
Lehrman, J. C., Albert Einstein '66, Meriden
*Leib, D. B., Yale '55, New London
Lieb, G. M. P., Yale '55, New London
*Leicach, J., Buenos Aires '56, Kensington
Leicach, M., Buenos Aires '53, Hartford
*Leighton, R. L., N. Y. Med. Coll. '60, Fairfield
*Lena, H. F., Jr., Cornell '45, New London
*Lena, R. P., Tufts '57, New Haven
*Lenci, T. D., Columbia '49, Fairfield
Lencz, E., Vienna '36, Miami Beach, Florida (New Haven County)
*Lenehan, J. R., Jefferson '37, West Hartford
*Lenkowski, W. J., N. Y. U. '37, Waterbury
*Leone, P. V., N. Y. Med. Coll. '50, Bridgeport
*Leonhardt, C. G., Albany '53, Hartford
Lepow, I. H., Western Reserve '58, Farmington
Lepow, M. L., Western Reserve '52, Farmington
Lerner, A. B., Minnesota '45, New Haven
Lerner, M. R., Western Reserve '50, New Haven
LeRoy, J. B., Yale '50, West Willington (Litchfield County)
LeRoyer, C. P., Tufts '42, West Hartford
Lesko, J. M., Duke '38, Bridgeport
*Lesnik, T. H., Albany Med. Coll. '67, Norwich
Lesser, R. L., Cornell '67, Waterbury
Lessow, R. J., Tufts '68, Hartford
Levenstein, M., N. Y. U. '58, Hamden
*Levieff, L., Lausanne '50, Stratford
Levin, A. E., Tufts '30, Hartford
*Levin, H. A., Univ. & Bellevue '18, New Haven
*Levin, L., Middlesex Hosp. Med. Sch. '65, Meriden

Levine, A. I., N. Y. U. ’35, Rowayton
*Levine, H., Harvard ’41, New Britain
*Levine, H., N. Y. U. ’46, Middletown
*Levine, H. P., Vermont ’50, Stamford
*Levine, I. R., Tufts ’62, New Haven
Levine, J., Vermont ’50, Stamford
Levine, M., Ghent, Belgium ’60, Bloomfield
Levine, R. A. S. U. N. Y. ’62, Norwalk
Levine, R. A., S. U. N. Y. ’66, Branford
*Levinsky, M., Maryland ’28, Bridgeport
Levinson, S. A., Jefferson ’65, Fairfield
*Levinson, S. R., John Hopkins ’71, Fairfield
*Levis, A. J., Zurich ’63, Hamden
*Levreault, G. V., Tufts ’42, Hartford
*Levy, A., Tufts ’31, Winsted
Levy, A. L., Albert Einstein ’66, New Haven
Levy, B. Seton Hall ’60, Hartford
*Levy, H. D., Boston ’59, Branford
Levy, L. L., Temple ’46, New Haven
*Levy, M. N., Tufts ’23, Bay Harbor Islands, Florida (Fairfield County)
*Levy, N., Yale ’27, Branford
*Levy, R. M., Tulane ’56, Derby
*Levy, S. H., Tufts ’35, Stratford
Levy, T. S., Med. Coll. of S. C. ’48, Bridgeport
*Lewicki, E. S., Georgetown ’35, Waterbury
Lewin, M. L., Albert Einstein ’61, Bridgeport
Lewis, D. O., Yale ’63, New Haven
*Lewis, G. L., Yale ’45, Simsbury
*Lewis, H. D., Harvard ’42, New Haven
Lewis, M., Guy’s Hospital ’50, New Haven
Lewis, S. D., George Washington ’31, West Palm Beach, Florida (Hartford County)
Lewis, S. H., Albert Einstein ’64, Old Greenwich
Lewis, W. S., N. Y. U. ’62, Bridgeport
*L’Heureux, J. A., Boston ’34, Meriden
*Liao, S. J., Hsiang Ya ’42, Middlebury
Licciardello, A. T., Harvard ’47, Stratford
*Licht, S., N. Y. U. ’31, Coral Cables, Florida (New Haven County)
Lichtenstein, E. S., Albert Einstein ’68, Greenwich
*Lichtman, A., Zurich ’54, Westport
Lidz, R. W., Basel ’35, Woodbridge
Lidz, T., Columbia ’36, New Haven
Lieberman, G., Albert Einstein ’61, Westport
Lieberson, A. D., Yale ’62, Westport
Liebowitz, M., Louvain ’66, West Haven
*Liebowitz, S. A., Un Basle ’65, Bloomfield
Light, C. F., Hahnemann ’57, Monroe
Lightbody, F. E. H., Edinburgh ’51, Greenwich
Lillian, M., Georgetown ’44, New Haven
*Lin, P. T. C., Aurora ’45, Ansonia
*Linburg, R. M., Yale ’64, Hartford
Lindenberg, L. B., Upstate Med. Ctr. ’65, Hartford
Lindenmuth, W. W., Jefferson ’38, New Haven
*Linder, J. H., Columbia ’27, West Cornwall
Lindquist, C. W., Johns Hopkins ’70, Willimantic
*Lindskog, G. E., Harvard ’28, Branford
Link, R. J., New Jersey ’67, Bridgeport
*Linnolt, E., Royal Charles, Stockholm ’51, Hartford
Lion, D. J., State Univ. N. Y. ’55, Hamden
Lipkoff, C. J., N. Y. U. ’36, Milford
Lippman, K. J., Cornell ’66, Westport
*Lippman, L., New York Un. ’67, Hartford
*Lipton, H., St. Louis ’32, Hartford
Lirot, S. L., McGill ’32, Meriden
*Lischner, M. D., Yale ’30, Hartford
Lisi, K. R., St. Louis ’64, Bridgeport
Lisi, R. J., Georgetown ’61, Norwalk
Liss, J. P., N. Y. Med. Coll. ’62, Hartford
*Litman, R. B., Yale ’70, New Haven & Washington
Litter, L., Basel ’36, Hartford
*Little, D. M., Jr., Harvard ’44, Hartford
*Little, M. H., Harvard ’35, Willimantic
*Little, O. A. G., Boston ’35, Willimantic
Littman, E., Chicago ’61, Norwalk
Livingston, R., Vermont ’60, West Hartford
*Livingston, W. T., Pennsylvania ’43, New Britain
*LiVolsi, V. A., Columbia Coll. P & S ’69, New Haven
Livstone, E. M., Yale ’69, New Haven
*Lloyd, D. S., Duke ’71, Hartford
Lo, C. B., Darien Med. Coll. ’56, Norwalk
Lobb, R. A., Hahnemann ’37, Deep River
*Lobdell, D. H., Michigan ’56, Bridgeport
*Lockhart, R. H., Yale ’28, Fairfield
*Lockward, H. J., Western Reserve ’43, Manchester
*Lockwood, J., Johns Hopkins ’30, New Preston (Fairfield County)
Loeser, L. K., Western Reserve ’52, Storrs
Loewald, E. L., Johns Hopkins ’48, Hamden
Loewald H. W., Rome ’34, New Haven
*Loewenberg, P. C., Berlin ’39, East Hartford
Logan, W. J., Yale ’25, New Haven
Loh, H. C., Tung-Teh ’50, West Haven
Lohman, W. H., Cornell ’45, Glastonbury
Lohrmann, W., Rochester ’43, Meriden
Loiacono, R. A., N. Y. Med. Coll. ’43, New London
*Lojko, A. T., Creighton ’69, Putnam
Long, D. S., West Va. Univ. ’69, Gales Ferry
Longo, A. D., Georgetown ’38, Portland
*Longo, V. J., Yale ’46, New London
*Longstreth, G., Columbia ’65, Sharon
*Lopatin, C., Louisville ’41, Bridgeport
*Lopez, R. E., Havana ’49, Kensington
*LoPresti, D. A., Long Island ’47, Hartford
Lord, B. J., Jr., Cornell ’43, Norwich
*Losito, A. I., St. Louis ’38, Port St. Lucie, Florida (Fairfield County)
*Lovallo, F., Tufts ’44, Sharon
Lovanio, R. G., N. J. Coll. Med. ’66, Bridgeport
Lovegrove, R. H., Michigan ’59, Stamford
*Lovekin, L. G., Wayne ’43, Norwalk
Loveless, M. H., Stanford ’24, Westport
*LoVetere, A. A., George Washington ’35, Sunnyvale, Calif. (Hartford County)
*Low, H. B. C., St. Johns University ’50, Hartford
Lowell, D. M., Cornell Univ. ’58, Waterbury
Lowry, E. C., Cornell ’35, Guilford
*Loyer, R. E., Wayne St. ’65, Waterbury
Lubchansky, J. H., N. Y. U. ’33, New London
*Lublin, R., Johns Hopkins ’29, East Hartford
Luby, M. J., N. Y. U. ’53, Hartford
Lucas, J. J., Rome ’57, Hartford
Luchansky, E. M., New Jersey ’67, Fairfield
Luchs, D., McGill ’50, Colebrook
Lucia, W., Bologna, Italy ’63, Bridgeport
Luciano, M. C., Pennsylvania ’44, Bridgeport
Luck, L. E., Albert Einstein ’72, Westport
*Lujic, P., Zagreb, Yugoslavia ’60, New Haven
Lund, D. A., Harvard ’61, New Britain
Lundberg, E. A., Vermont ’40, Stamford
*Lundberg, G. A. F., Jefferson ’19, Manchester
*Lundberg, G. A. F., Jr., Jefferson ’53, Manchester
Lundberg, W. B., Columbia Un. ’70, New Haven
Lundborg, C. B., N. Y. Med. Coll. ’67, Milford
*Luria, S., Western Ontario ’38, Hollywood, Florida (Fairfield County)
*Luria, S. B., Harvard ’43, Waterbury
Lutes, R. A., Un. Illinois ’67, Waterbury
*Lyall, S. S., Maulana Azad, India ’65, Madison (Hartford County)
*Lyddy, J. R., N. Y. U. ’44, Stratford
*Lynch, F., Columbia ’43, Westport
Lynch, J. K., Ottawa ’64, New Haven

*Lynch, M. E., Harvard ’57, Avon
Lynch, V. A., Jefferson ’38, Bridgeport
Lynch, V. A., N. Y. Med. Coll. ’67, New Haven
*Lynch, W. A., Indiana ’63, Hartford
Lynch, W. F., Jefferson ’52, New Haven
*Lyon, G. A., Cornell ’41, Bridgeport
*Lyons, B. E., Yale ’38, Norwalk
Lyons, K. H., Women’s Med. Coll. Pa. ’54, Waterbury
Lyons, W. B., Georgetown ’45, West Haven
*Lytton, B., London Hospital ’48, New Haven
*Mabasa, R. A., Philippines ’63, New Milford
*Macaulay, W. P., McGill ’59, Hartford
MacCready, W. H., Harvard ’27, Windsor
MacDonald, C. A., Columbia ’59, Torrington
*MacDonald, R. J., Albany ’64, Farmington
MacDougall, A. D., Cornell ’43, Groton
Macgregor, J. V., London ’28, Darien
*Machcinski, V. A., Yale ’47, Danbury
Machledt, J. H., Jr., Johns Hopkins ’68, Fairfield
Macionus, R. F., Vermont ’66, Cromwell
Mack, A. G., Albany ’43, Trumbull
*Mack, D. E., Syracuse ’43, Windsor
*Mack, G. T., Wuerzburg ’53, Cheshire
Mack, J. A., Albany ’43, Bridgeport
*Mackay, I. M., Edinburgh ’56, Hartford
*Mackay, W. D., Indiana ’28, Salisbury
*MacKinnon, I., Cornell ’51, West Hartford
MacMaster, D. R., Dalhousie ’60, Litchfield
Mac Rae, D. W., Johns Hopkins ’64, Orange
*Mactal, J. A., Far Eastern Un. ’68, Danbury
*Madden, T. J., Univ. of Chicago ’44, New Britain
Maderazo, N. V. B., Santo Tomas ’67, Southington
Madison, R. L., State Univ. N. Y. ’53, Stamford
Madsen, J. E., Jr., Cornell ’68, New London
*Madwed, A. E., N. Y. Med. Coll. ’51, Bridgeport
Magari, S. V., Kastarba ’66, Danbury
*Magauran, B. G., National Univ. ’54, Enfield (Tolland County)
Magendantz, H. G., Duke ’62, New Haven
*Magida, M. G., Long Island ’46, Stamford
Magram, H. M., Columbia ’52, Middletown
*Maher, P. H., N. Y. Med. Coll. ’65, Greenwich
*Mahoney, J. J. McGill ’33, Norwich
Mahmud, A. W., Dacca Univ. ’65, Middletown
*Maidman, L., N. Y. U. ’40, Wilton
Maier, R. F., Tufts ’59, Somers
Maiocco, K. J., Rochester ’67, Bridgeport
Maislen, S., Vermont ’14, Hartford
*Major, J. W., Vanderbilt ’39, Willimantic
Makover, R., Albert Einstein ’64, New London
*Malik, J. M., King Edw. Med. Coll. Pakistan ’67, Bloomfield
*Malinconico, L. L., Tufts ’51, Hartford
*Malloy, E. F., Cornell ’28, Stamford
*Malloy, T. McK., Tufts ’62, Danbury
Malone, H. J., Vermont ’49, Manchester
*Malone, R. F., Tufts ’43, Devon
*Maloney, P. K., Jr., Georgetown ’60, Norwalk
Maloney, R. H., Emory ’48, Hartford
Malter, I. J., Harvard ’67, Pomfret Center
Malyska, F. A., Georgetown ’55, Bridgeport
*Manas, A., Tufts ’67, Hartford
*Mancall, I. T., Pennsylvania ’44, Hartford
Manchepalli, A. S. A., Mysore ’61, Wallingford
*Mancinelli, M. J., Hahnemann ’43, Stamford
Mancini, A. D., Turin ’56, East Haven
*Mancoll, M. M., Jefferson ’28, Hartford
*Mancoll, W., Jefferson ’60, Hartford
Mandell, H. N., Columbia ’50, Norwich
Mandell, J., Boston ’48, New Britain
Mandell, M., Long Island Coll. Med. ’46, Norwalk
Manes, P. R., Vermont ’57, Kinston, North Carolina (New Haven County)
Mangi, R. J., Downstate ’67, New Haven
Mangieri, J. V., N. Y. Med. Coll. ’63, Bridgeport
Manheim, G., Vermont ’46, New Haven
*Maniatis, W. R., Yale ’47, Bridgeport and New Haven
*Manimbo, S. G., Far Eastern Univ., Philippines ’63, Stamford
Maningas, A. L., Un. Santo Tomas ’57, South Windsor (New Haven County)
*Manjoney, R. C., Vermont ’50, Ansonia
Manjoney, R. J., Vermont ’53, Bridgeport
*Manjoney, V. A., Vermont ’47, Bridgeport
Manlapaz, J. S., Santo Tomas ’56, Danbury
*Mann, N. M., Long Island ’45, West Hartford

*Manning, I. H., Woman’s Med. Pa. ’50, Norwich
*Mannix, H., Jr., Cornell ’50, Hartford
*Mansourian, V., Paris ’67, New Haven
*Mantel, F., New York ’64, Bloomfield
Manzi, J. A., Cork ’55, Middletown
Mara, N. F., Vermont ’62, Vernon (Hartford County)
Marchand, G. A., Jefferson ’64, New London
Marchbanks, V. H., Jr., Howard ’37, Hartford
Marcus, H., N. Y. U. ’39, Greenwich
Maresh, H. R., Tufts ’73, Farmington
Margolick, M., McGill ’35, Putnam
Margolis, R. N., Tufts ’58, New Haven
*Margolius, N. C., Cornell ’33, Waterbury
Margules, R. M., Un. Calif. ’66, Newtown
*Mari, E. G., Buenos Aires ’64, Waterbury
*Marinaro, N. A., St. Louis ’30, Avon
Mariani, R. A., Pennsylvania ’44, New London
Maric, R., Un. Croatia ’63, Ansonia
*Marieb, N. J., Rochester ’59, Orange
Marignani, P., Un. Rome Italy ’60, Derby
*Marino, A. M., Georgetown ’64, Greenwich
Marino, F. S., Maryland ’42, Hartford
*Marino, R. S., Boston ’42, Waterbury
*Marinucci, E. D., N. Y. Med. Coll. ’44, Norwalk
Marjani, M. A., Un. Tehran ’61, Waterbury
Mark, H. H., Vienna ’57, New Haven
*Markley, D. N., Edinburgh ’36, Hartford
*Markley, H. E., Yale ’43, Greenwich
*Markley, L. L., Prague ’25, Fairfield
*Marks, E. M., Buffalo ’46, Bridgeport
*Markwald, H. W., Berlin ’37, New Hartford
*Marlow, D. J., Women’s Med. Coll. of Pa. ’47, Kent
Marmer, E. L., Alabama ’64, Vernon
Maron, T. W., Jr., New Jersey ’67, Essex
Marrash, S. E., Am. Univ. Beirut ’57, Bridgeport
Marsh, A., St. Andrews ’37, New Britain
Marsh, C. O., Women’s Med. Coll. Pa. ’51, West Hartford (New Haven County)
*Marsh, R. R., Harvard ’45, West Hartford
*Marsh, S. H., Harvard ’51, Hartford (New Haven County)
Marshak, I. J., Tufts ’26, New Haven
*Marshall, B. R., Tufts ’54, Hartford
*Marshall, D., Northwestern ’47, Bloomfield
*Marshall, D. C., Harvard ’57, New London
Marshall, J. F., Miami ’66, New Haven
Marshall L. F., Chicago ’54, West Hartford
*Martelon, G. F., Boston ’48, Bridgeport
Martin, D. N., Albany ’63, Wilton
*Martin, E., Yale ’40, New Britain
Martin, J. E., Dalhousie ’42, Norwich
*Martin, J. G., Yale ’33, West Hartford
*Martin, K. H., Yale ’44, Watertown
Martin, M. G., Queen’s Univ. Can. ’44, Norwich
*Martin, R. S., Cornell ’61, Hartford
*Martin, W. E., N. Y. Med. Coll. ’52, Stratford (New Haven County)
*Martinson, E. O., Columbia ’35, Madison (Middlesex County)
*Marvin, H. M., Harvard ’18, New Haven

Marx, F. G., Pennsylvania '53, New London
Marzialo, N. A., Tufts '48, Manchester
*Mascoli, N. M., Jr., Georgetown '63, Waterbury
Mashman, J. H., Vermon '65, Danbury
*Masi, A. V., New Jersey Coll. Med. '62, Bridgeport
Mass, H., Leiden '56, New Haven
*Massey, D. M., Hahnemann '36, Bridgeport
Massey, R. U., Wayne '46, Farmington
Massi, J. L., St. Louis Univ. '69, New Britain
Massie, W. J., Meharry '47, New Haven
*Masterson, T. J., Tufts '45, Norwich
*Mastrangelo, A., Jr., Boston '39, Stamford
Mathews, J., Trivandrum '58, Enfield
*Matteis, J. T., Yale '26, Kensington
*Matthews, L. G., Seton Hall '63, Freehold, New Jersey
(Hartford County)
Mattie, L. R., Yale '52, New Haven
Mattson, R. H., Boston '57, New Haven
Matyszewski, S. E., Yale '62, Waterbury
*Mauck, F. T., Pennsylvania '57, Farmington
*Mauks, C. W., Budapest '32, Danbury
*Maurer, L. L., Yale '16, Woodbridge
Maurer, W. S., Yale '38, West Lebanon, New Hampshire
(Windham County)
Maxham, D. L., Vermont '53, Fairfield
*Mayo, E. R., Tufts '38, Waterbury
*McAlenney, P. F., Yale '29, Southbury
*McAndrews, J. F., Columbia '46, Hartford
*McCalley, S. W., Case Western '69, Greenwich
McCallum, R. W., Australia-Brisbane '68, New Haven
McCarthy, C. P. N., Univ. Coll. Cork '60, New Haven
McCarthy, F. W., Jr., Columbia '42, West Hartford
*McCarthy, J. D., Rochester '55, Hartford
McCarthy, J. C., Yale '62, Evansville, Indiana
(Litchfield County)
McCarthy, R. E., Hahnemann '66, Middletown
McCaul, K. F., Nat'l. Univ. Ireland '50, Norwalk
McCawley, A., Glasgow Un. '48, Hartford
McCloskey, E. M., Jefferson '51, Hartford
McClure, P. H., Emory '64, Bristol
*McCooey, J. H., State Univ. N. Y. '56, Hartford
McCormack, J. M., Dublin '47, Hartford
McCrann, D. J., Tufts '34, Hartford
*McCreery, E. P., Jr., Virginia '42, Fairfield
*McCue, M. P., Harvard '34, Waterford (Hartford County)
McCullough, C. D., N. Y. Med. Coll. '58, Bridgeport
McCullough, W. B., Columbia '65, New Haven
*McDermott, G. M., Galway Med. School '58, Bristol
McDermott, J. F., Cornell '23, Honolulu, Hawaii
(Hartford County)
McDermott, J. J., N. Y. U. '52, Danbury
McDonagh, P. H., Dublin '51, Greenwich
McDonald, J., Un. Glasgow '61, Glastonbury
*McDonald, R. L., N. Y. Med. Coll. '60, Roxbury
*McDonnell, R. R., Jefferson '45, New Haven
McDowell, A. V., Albany '52, Middletown
McFarland, F. W., Vermont '28, Stamford
*McFarland, W. J., Yale '39, New London
McFarland, W. J., Jr., Yale '72, New Haven
McGann, D. M., National Univ. Ireland '52, South Windsor
*McGann, R. F., St. Mary's Hosp., London '58, Meriden
*McGarry, J. F., Vermont '46, Bridgeport
McGarry, J. J., Yale '51, Darien
McGarry, M. E., Tufts '46, New Haven
*McGaughey, J. D., III, Jefferson '44, Wallingford
*McGourty, A. F., N. Y. Homeo '18, Norfolk
(Fairfield County)
McGowan, G. E., Laval '57, Hartford
McGowan, T. S., Tennessee '32, Storrs (Windham County)
McGrath, B. J., Yale '59, Guilford
McGuane, R. M., N. Y. Med. Coll. '53, Thompsonville
McGuire, C. W., New York '61, New Haven
*McIntyre, F. P., Vermont '42, Stamford
*McKay, D., Queen's Univ. '56, Middletown
McKee, J. B., Jr., Virginia '59, New Haven
*McKee, D. R., N. Y. U. '59, Stamford
McKeehan, F. R., Rochester '50, New London
*McKendree, C. G., Virginia '43, Greenwich
*McKenna, J. F., California '48, Torrington
*McKeon, J. J., Hahnemann '39, Hamden
*McKeon, W. F., New York '59, Norwich
*McKnight, R. S., Pittsburgh '45, Hartford
*McKnight, W. K., Pittsburgh '35, Bridgeport
McLanahan, S. M., Wayne St. '73, Putnam
McLean, C. E., Yale '45, Hartford
*McLean, T. S., Jr., Vermont '34, Vero Beach, Florida
(Fairfield County)
*McLeod, C. E., Vermont '34, Middletown
McLoughlin, M. J., Nat'l. Un. Ireland '60, New Haven
McLoughlin, P. J., New York '58, Bridgeport
McNamara, J. R., Georgetown '61, Norwalk
McNamara, T. C., Georgetown Univ. '69, Norwich
*McNerney, J. C., Jefferson '27, Stamford
*McNulty, T. F., Georgetown '32, Hartford
McQuade, G. W., Dalhousie '63, Bridgeport
*McSweeney, J. J., Cornell '66, Stamford
*Meacham, C. T., Pennsylvania '30, Stamford
Meehan, B. J., Lausanne '61, Newtown
Mehta, S. S. R., Univ. of Rajasthan '68, Loma Linda, Calif.
(Fairfield County)
*Meia, H. B., Nacional De Cordoba '63, Milford
*Meigs, J. W., Harvard '40, New Haven
*Meisner, B. M., Rochester '60, Manchester
*Mekrut, J. A., St. Louis '31, Sun City Center, Florida
(New Haven County)
Mellisy, A., Long Island Coll. Med. '43, South Kent
*Melmed, R. M., Jefferson '56, Greenwich
Melton, A. R., S. U. N. Y. Downstate '70, Willimantic

Meltzer, S. B., Long Island '44, Bridgeport
*Mendelsohn, W., Johns Hopkins '33, Hamden
Mendelson, L. M., Med. Coll. Virginia '65, Hartford
*Mendillo, J. J., Columbia '45, New Haven
Mendoza, J. P., Jr., Santo Tomas '68, Bristol
*Mendoza, R., Mexico '50, Norwalk
Meno, G. P., Geneva '59, Norwalk
Menousek, J. A., Vermont '32, Juno Beach, Florida
(Hartford County)
Menzer, A., Un. of Basel '39, West Hartford
*Meo, R. C., George Washington '34, Waterbury
Merdinolu, M. A., Istanbul '56, Norwalk
Mergenthaler, F. W., New York '61, Bridgeport
Meridy, H. W., Un. Vermont '66, Hartford
Mermann, A. C., Johns Hopkins '47, Guilford
*Merriman, H., Columbia '36, Waterbury
Mertz, J. J., Harvard '61, Southington
*Meshken, J., Rush '37, Bridgeport
*Messinger, H. J., Basel '39, Fairfield
*Messore, G., Univ. of Naples '50, Milford
Mestel, R., Un. Vienna-Austria '34, West Haven
Methot, L. G., Georgetown '58, Bridgeport
*Meunier, J. L., Vermont '38, Torrington
Meyer, J. L., Long Island '49, Putnam
*Meyer, L., Albert Einstein '68, Meriden
*Meyers, R. A., Michigan '31, Watertown
Michael A. H., Athens '53, Bridgeport
Michaelson, S. P., State Univ. N. Y. '72, Darien
Michalka, J. J., St. Louis '58, Bridgeport
*Micheels, L. J., Utrecht '47, Westport
Michel, L. I., Long Island '43, New Haven
Mickenberg, I. D., S. U. N. Y. '65, Southbury
Mickley, D. W., Tufts '71, Greenwich
Mickley, S. P., Harvard '71, Greenwich
*Middleton, C. J., S. U. N. Y. '64, Danielson

*Mignone, J., Yale '33, New Haven
Milano, A. F., Nat'l. Un. Ireland '66, Woodbridge
Milano, M. F., Nat'l. Un. Ireland '66, Clinton (New Haven County)
*Milano, N. A., Georgetown '27, West Haven
Milazzo, N. J., State Univ. N. Y. '54, Derby
*Milewski, S. A., Dublin '56, Manchester
*Milici, J. J., Hahnemann '40, West Haven
Milikow, E., N. Y. U. '64, Hartford
*Millard, D. H., Georgetown '46, Greenwich
*Millen, S. R., George Washington '38, New Haven
Miller, B., Boston '51, Bloomfield
Miller, D. E., Hahnemann '59, Middletown
Miller, D. F., Yale '56, Waterbury
*Miller, G. R., Tufts '39, Manchester
*Miller, H. B., Rush '33, Hartford
*Miller, H. K., Columbia '32, Stamford
Miller, J. D., N. Y. U. '71, Danbury
Miller, J. M., Albany '67, Bloomfield
Miller, L. W., Boston '67, Hartford
Miller, M. M., St. Un. N. Y. '51, Cheshire
Miller, R. B., Loyola Univ. '42, Newtown
Miller, R. G., Tufts '51, Danbury
*Miller, S. M., Tulane '41, Bloomfield
Milles, S. S., Rochester '55, New Haven
*Mills, B. L., Vermont '25, Northfield, Ohio (New London County)
*Mills, C. W., Cornell '38, Norwalk
Milone, J. E., Naples '39, Norwich
Milyko, A. B., Columbia '55, West Hartford
Mino, M. E., Universidad Central '52, Wethersfield (Litchfield County)
Minor, J. V., Jr., Georgetown '46, Norwalk
*Minor, L. W., Yale '32, Middletown
*Minot, H. D., Jr., Harvard '50, Norwalk
Mintell, D. F., Jefferson '64, Glastonbury
Mirabelli, V., Padua '53, Bristol
Mirabile, C. S., Jr., McGill '63, Sharon
Mirabile, C. S., McGill '30, Farmington
*Mirabile, T. J., Georgetown '37, East Hartford
Mirkhani, M., Tehran '51, Cheshire
*Mirrer, E., Geneva '65, Waterbury
*Miselis, F. J., Boston '45, Uncasville
*Missier, P. A., Un. Bologna '54, Greenwich
Misuk, J. F., Georgetown '32, Meriden
Mitchell, G. V., McGill '38, Torrington
Mitler, L. K., S. U. N. Y. Downstate '70, New Haven
*Mittelman, J. A., Pennsylvania '48, Hartford
*Mittelmann, M., Chicago '57, Hartford
Mizak, D. J., Jefferson '68, Huntington
*Mlynarski, J. A., Georgetown '39, New Britain
Moadel, M. M., Tehran '59, Westport
Moalli, D. E., Boston '61, New London
*Moench, J. C., Rochester '45, New Haven
*Mogil, M., Buffalo '39, New Haven
*Moher, J. J., Yale '37, Hartford
*Moll, D., Tufts '70, Derby
Molloy, E. M., N. J. Coll. Med. '66, Fairfield
*Molloy, P. M., Yale '59, New London
Molloy, R. J., Cornell '48, Hartford
*Molnar, G. J., Georgetown '43, Bridgeport
*Moloney, D. R., Galway '59, Hartford
*Molumphy, P. E., Yale '44, New Haven
Mombello, G. E., Albany '64, New Haven
Monagan, T. M., Harvard '40, Waterbury
*Mongillo, F., Med. Coll. Va. '28, New Haven
Monroe, J. B., Un. Miami '72, Ridgefield
Montano, C., Albany Med. Coll '72, Old Saybrook
*Montgomery, J. S., Southwestern '61, New Haven
Montimurro, J. A., Yale '52, Greenwich
*Montoni, E. J., Georgetown '55, West Simsbury (Litchfield County)
Moody, P. C., Case Western Reserve '69, New Britain
Moon, W. K., Catholic Med. Coll. '64, Torrington (Hartford County)
*Mooney, J. P., N. Y. Med. Coll. '56, Shelton (New Haven County)
*Mooney, S. Tufts '27, Bridgeport
*Moore, C. D., Queen's '28, Lehigh Acres, Florida (Fairfield County)
Moore, E. J. T., Tufts '48, Waterbury
Moore, M. F., State Univ. N. Y. '55, New Canaan
*Moore, M. R., Queen's '29, Spring Hill, Florida (New London County)
Moore, R. W., N. Y. U. '43, Sharon
Moore, W. J., Columbia '21, Cheshire
Mordavsky, D. F., Univ. Conn. '73, Manchester
Moreschi, F. P., Bologna '51, Meriden
Morgan, K. R., Yale '42, Fairfield
*Morgan, L. G. N. Y. Med. Coll. '49, Stamford
*Morgan, W. O., Georgetown '30, Westport
Morgan, W. S., Yale '51, New Haven
*Morhardt, C. E., N. Y. Med. Coll. '61, West Hartford
*Moriarty, J. P., Vermont '47, Stamford
Morley, D. C., Queen's '56, Greenwich
*Morrill, H. F., Harvard '25, Wolcott
*Morris, F. R., Maryland '41, Bridgeport
*Morrison, D. W., Columbia '40, Manchester
Morrison, J. B., Yale '48, Orange
Morrison, J. E., Maryland '46, Norwich
Morrison, J. W., Jr., Un. virginia '70, Middletown
*Morrison, M. A., N. Y. U. '65, Fairfield
*Morrison, R. F., N. Y. U. '64, Meriden
*Morrissett, L. E., Med. Coll. Va. '30, Richmond, Virginia (Fairfield County)
*Morrissey, V. J., Georgetown '32, Westport (New Haven County)
Morrow, H. S., Columbia '40, New Milford
Morrow, J. S., Boston Univ. '69, Hartford
Morse, W. J. Jr., Vermont '61, New London
Morse, W. J., Vermont '31, Sanibel, Florida (New London County)
*Moses, J. A., Trivandrum, India '58, Fairfield
*Moskowitz, H., St. Univ. New York '59, West Hartford
Moskowitz, R. I., S. U. N. Y. '67, Willimantic
*Moskowitz, R. S., S. U. N. Y. Downstate '69, Westport
*Moss, A. M., Toronto '47, Fairfield
*Moss, R., St. Univ. New York '63, New Britain
Mostel, A. P., Albert Einstein '60, Stamford
Mott, F. E., Buffalo '41, New Haven
Motyka, S. J., Arkansas '38, Fullerton, California (Hartford County)
*Moulyn, A. C., Utrecht '30, Stamford
Moyer, W. T., Jr., Pennsylvania '47, Manchester
Moynahan, P. A., Med. Coll. Pennsylvania '68, Waterbury
*Mozzicato, S., Louisville '70, Farmington
Muangman, P., Chiengmai Un. Hosp. '64, Hartford
*Mucha, T. F., Jefferson '64, Hartford
Mueller, R. E., Yale '63, Hartford
Mujtaba, Q., Dow Med. College '67, New Haven
*Mulaire, V. J., Boston '39, Stamford
*Mulford, E. H., II, Duke '41, Norwalk
*Mulhern, P. H., Birmingham '50, Fort Lauderdale, Florida (New Haven County)
*Mulligan, T. M., Boston Un. '38, Waterbury
Mullin, R. L., Tufts '55, Meriden
Mumford, D., Birminghan Univ. England '60, Hartford
Munch, R. V., St. Louis '62, Winsted
*Murcko, W. J., Marquette '37, Torrington
Murphy, A. G., Cornell '40, New London
*Murphy, C. A., Long Island '33, Chatham, Massachusetts (Fairfield County)
*Murphy, E. F., Tufts '55, Windsor

Murphy, J. C., Columbia ’32, New York City, New York (Fairfield County)
Murphy, J. D., Maryland ’54, Hartford
Murphy, J. J., Tufts ’43, East Hartford
*Murphy, J. M., Cornell ’60, Greenwich
*Murphy, J. P., N. Y. Med. Coll. ’50, Cos Cob
*Murphy, O. L., Vermont ’21, Simsbury
Murphy, R. D., Tufts ’47, Wethersfield
*Murphy, T. F., Jefferson ’33, West Hartford
*Murray, J. G., N. Y. U. ’43, Greenwich
Murray, J. H., Temple ’67, Hartford
*Murray, J. T., N. Y. U. ’47, New London
Murray, W. C., Tufts ’53, Bristol
*Murray, W. J., Jr., Cornell ’47, New London
*Musto, A., Georgetown ’68, Bridgeport
Musto, D. F., Univ. Washington ’63, New Haven
Myerson, D. A., Columbia ’65, Derby
*Myerson, M., Tufts ’61, Hartford
Myerson, P. J., Columbia ’65, Derby
Mylon, E., Berlin ’21, New Haven
Nadel, H., Buffalo ’60, Glenbrook
*Nadel, M. S., Columbia P & S ’62, Middletown
*Nagaraja, U., Grant Med. Coll. ’60, New Milford
*Nagle, J. A., Jefferson ’55, Stamford
Nagourney, D., Long Island ’36, Bridgeport
Naiman, P. T., Columbia ’63, Bridgeport
Nair, S., Madras ’51, Norwalk
*Nakhoul , J., Geneva ’53, Hartford
Nanni, F. P., Lausanne ’57, Waterbury
Narayanan, C. N., Calicut ’64, Hartford
Narowski, C. A., Temple ’54, Derby
*Narowski, J. J., Tufts ’43, Derby
Nash, I., Columbia ’69, New Haven
*Nathanson, R. B., Albany ’66, West Hartford
Neff, W. E., Jr., Columbia ’33, Cheshire
*Neidlinger, W. J., Cornell ’33, Hartford
Neill, M. H., Columbia P & S ’43, Hartford
Neibel, K. G., Louvain ’70, Waterbury
Nejame, F. F., Mexico ’60, Waterbury
*Neligan, P., National Univ. Ireland ’51, Ridgefield
Nelligan, D. J., Yale ’55, Westbrook (New London County)
Nelson, R. K., Minnesota ’59, New Britain
*Nelson, W. N., George Washington ’26, Cromwell
Nemec, J. M., Tufts ’66, Old Greenwich
*Nemoitin, B. O., Long Island ’34, Stamford
Nepomuceno, M. N., St. Tomas ’52, Willimantic
*Nesbitt, K. A., Albany ’51, Torrington
Nesi, R. M., Univ. Bologna, Italy ’65, Brookfield
Neth, W. F., McGill ’55, Trumbull
*Neumann, H. H., Univ. Vienna ’32, New Haven
Nevins, R. A., Georgetown ’51, Fairfield
*Nevulis, A. V., Vermont ’38, New Britain
*Newberg, M. E., Columbia ’63, Greenwich
*Newell, R. C., Boston ’56, Bloomfield
Newman, A. A., Long Island ’42, Bridgeport
*Newman, H. R., Toronto ’35, New Haven
Newman, R., Johns Hopkins ’30, Woodbridge
*Newman, R. A., Louvain, Belgium ’70, Hartford
Newman, R. D., Un. California ’62, Greenwich
Newman, R. J., S. U. N. Y. ’45, Waterbury
Newton, R. F., Yale ’47, Hamden
Ney, C., Johns Hopkins ’37, Stamford
Nezhad, F. M., Tehran ’56, Waterbury
Nicholl, R. G., Phila. Coll. Osteo. Med. ’33, Greenwich
*Nichols, E., Yale ’39, Hartford
*Nichols, F. L., Columbia ’42, Hartford
*Nicholson, R. E., Tulane ’42, Hartford
*Nickou, N., Univ. Cincinnati ’49, Branford
*Niederman, J. C., Johns Hopkins ’49, New Haven
*Niejadlik, D. C., Univ. N. Y., ’67, Portland
Niell, J. P., Nat’l. Un. Cordoba-Argentina ’65, Stamford
*Nielsen, T. M., Copenhagen ’38, New London
Niemann, C. P., Wurzburg ’52, Sherman (Litchfield County)
*Niesyn, E. D., Georgetown ’53, Bridgeport
Nieto, R. A., Nat’l. Univ. Columbia ’70, Manchester
*Nijensohn, D. E., Nat’l. Univ. Cuyo, Mendoza, Argentina ’69, Bridgeport
*Nino, A. F., Nat’l. Un. Colombia ’63, Hartford
Nissanka, M. D. S., Univ. Ceylon ’69, Vernon
Nix, H. R., Alberta, Canada ’61, Manchester
*Nixon, J. T., N. Y. U. ’51, New Haven
Nocks, J. J., Pennsylvania ’68, West Haven
*Nolan, J. J., Pittsburgh ’42, Stamford
Nolan, J. O’L., Tufts ’40, Hartford
*Nolan, T. F., Yale ’49, Greenwich
*Nolasco, D. R., Coimbra ’51, New Haven
Noniewicz, S. J., St. Louis ’56, New Britain
Noonan, R. H., Long Island ’47, Bridgeport
Norbert, G. F., Tufts ’65, Avon
*Norman, P. S., Tufts ’56, Manchester
*Norrington, E. G., N. Y. Med. Coll. ’39, Norwalk
Northman, F. F., Breslau ’34, Bridgeport
*Northrop, R. A., Jefferson ’32, Westport
Norton, W. S., Columbia ’37, New Haven
Nosce, L. V., Sto. Tomas ’63, Manchester
*Noto, P. J., New Jersey ’69, New Haven
*Nourizadeh, A. R., Tehern, ’59, New Britain
Nova, S., Cincinnati ’67, Bloomfield
Novack, S. N., S. U. N. Y. ’66, Norwalk
Nuland, S. B., Yale ’55, New Haven
*Nunes, M., Howard ’54, Waterbury
*Oakley, D. E., Un. Colorado ’71, Norwich
*O’Brasky, L., Jefferson ’22, New Haven
*O’Brien, F. H., Columbia ’38, Waterbury
O’Brien, F. J., Boston ’54, Hartford
O’Brien, G. J., McGill ’63, Willimantic
O’Brien, J. E., Vermont ’61, Wethersfield
O’Brien, J. J., Downstate Med. Ctr., ’68, Hartford
*O’Brien, M. M., St. Louis Univ. ’72, Groton
*Oceretko, J., Friedrich-Alexander Un. ’50, Bristol
*O’Connell, C. G., Un. Coll. Ireland ’62, Vernon
O’Connell, E. B., Yale ’41, New Haven
O’Connell, E. J., Tufts ’34, Farmington
*O’Connell, J. D., Harvard ’39, Hartford
O’Connell, M. F., Yale ’22, West Hartford
O’Connell, P. B., Hahnemann ’67, West Hartford
*O’Connell, P. H., Loyola ’29, Norwich
*O’Connell, R. L., Columbia P & S ’51, Stamford
O’Connell, T. J., N. Y. Med. ’48, Hartford
O’Connell, C. F., Un. Coll. Galway ’58, Glastonbury
O’Connor, L. E., Univ. of Galway ’55, Rockville (Hartford County)
Oesau, H. T., Jr., Jefferson ’62, Bridgeport
*Ogilvie, J. B., Yale ’34, Stamford
Ohanesian, J. H., Hahnemann ’49, New Britain
*O’Hayre, W. L., Un. Colorado ’59, Hartford
*O’Hurley, J. G., Jefferson ’52, Hartford
Okstein, C. J., Tufts ’70, Willimantic
Olanoff, M., Boston Un. ’66, Norwalk
*Olejnik, W., Rijksuniversiteit ’54, Middletown (New London County)
O’Looney, J. J., Jr., Jefferson ’45, Bridgeport
Olore, L., Tufts ’43, Waterbury
*Olsavsky, J. C., Georgetown ’43, Bridgeport
Olsen, R. C., Long Island ’45, New London
Olson, L. E., Yale ’54, New Haven
O’Neil, V. D., Un. McGill ’41, Newington
O’Neil, J. J., Tufts ’48, New Haven
Onglingswan, W. T., Philadelphia ’61, Willimantic
Opinsky, M., Georgetown ’46, Hartford
Opsahl, J. C., Alberta ’54, Boston, Mass. (New Haven County)

*Orbach, E. J., Berlin '24, New Britain
*O'Regan, P. T., National '52, Meriden
O'Reilly, D. J., Un. Adelaide, Australia '70, Hartford
O'Reilly, H. F., St. Un. N. Y. '53, New Britain
*Orgun, I. N., Istanbul '53, Avon
*Orlandi, R. J., N. Y. Med. Coll. '68, New Milford
Orlins, M. D., Amsterdam '56, Norwalk
*Orlowski, A. W., Tufts '36, Torrington
*Ormrod, J. K. T., McGill '43, Hartford
*Ornston, D. G., Jr., Pennsylvania '59, New Haven
*O'Rourke, G. W., New York Med. Coll. '61, Fairfield
O'Rourke, J., Georgetown '49, Farmington
*Orphanos, J. R., N. Y. Med. Coll. '58, Greenwich
Orr, H. D., Boston '48, Norwalk
*Orr, J. T., Columbia '52, Danbury
Orth, R. H., Cornell '53, Stamford
Ortiz, F., Cayetano Heredia Med. Sch. '70, Meriden
*Osadchey, L. M., Upstate Med. Ctr. '63, Meriden
Osborn, D., Yale '57, Norwalk
Osborn, D. J., Cape Town '62, Waterbury
*Oster, K. A., Cologne '34, Bridgeport
Oatriker, M., Bellevue '52, Stamford
Ostriker, P. J., State Univ. N. Y. '50, Stamford
Ostrov, M. R., Chicago '63, Waterbury
Otis, F. N., Tufts '18, Bloomfield (New Haven County)
Otis, R. D., Yale '49, Hartford
O'Toole, P., Trinity '53, Norwich
Oviedo, A., Javeriana Univ. '65, Hartford
*Owens, A. P., McGill '37, Bridgeport
Owens, G., Harvard '50, New Britain
Owlia, D., Tehran '68, Hartford
Oxley, L. L., Meharry Med. Coll. '59, Storrs (Windham County)
*Oxnard, E. W., Harvard '36, Cheshire
Oxcomert, S., Ankara '47, Stamford
Ozenberger, J. M., Missouri '58, Clinton (New Haven County)
*Ozonoff, M. B., Northwestern '54, Newington
*Paardenkooper, J., Utrecht '58, Moodus
Pace, S. A., Un. Rome '70, Bridgeport
*Pace, S. F., Rome '52, Wethersfield
Padula, R. D., Cincinnati '30, Fort Myers, Florida (Fairfield County)
Paggioli, J. W., Georgetown '56, Meriden
*Pagliaro, J. J., Georgetown '37, Shelton
Painter, R. L., Indiana '59, Putnam
Painter, R. W., Tennessee '46, Hartford
*Palermino, D. A., Tufts '58, Hartford
Palesty, J., Un. Florence, Italy '63, Waterbury
*Palker, N. A., Goa Medical College '68, Niantic
*Palluotto, W. V., N. Y. Med. Coll. '50, New Haven
Palm, C. R., N. Y. U. '63, Torrington (New Haven County)
Palma, J. F., Vermont '59, East Hartford
Palmer, W. M., Cornell '51, Waterford
*Palmieri, M. L., Yale '32, Middletown
Panaligan-Noble, R., Un. Santo Tomas '67, Cheshire
*Panettieri, A. J., Vermont '37, Bridgeport
Pang, S. C., Darien Med. Sch. '56, Norwalk
*Pantaleo, C. V., Creighton '43, New Haven
*Papa, J. S., Tufts '28, Fort Lauderdale, Florida (Hartford County)
Papowitz, A. J., Louisville '66, Norwalk
Pardi, M. T., Pisa-Italy '61, Lucca, Italy (New Haven County)
*Pardi, V. M., Un. Pisa '60, Milford
*Parente, L., Emory '31, Hamden
*Parisi, A. J., Tufts '44, New Haven
*Park, S., Seoul Nat'l. Univ. '49, North Grosvenordale
*Park, Y. J., Seoul Nat'l. Un. '63, Bridgeport
*Parke, D. W., Ohio '50, Meriden
Parker, L. P., McGill '66, Hartford
*Parker, R. L., Western Ontario '41, Bridgeport
*Parlato, H. A., N. Y. U. '36, New Britain
*Parlato, M. A., Yale '08, Derby
*Parrella, G. S., Yale '41, Milford
*Parrella, L. A., Tufts '34, North Haven
Parry, M. F., Columbia '70, Stamford
Parshley, P. F., Pennsylvania '27, Pinehurst, North Carolina (Hartford County)
Parthenis, A., Western Ontario '61, Norwich
*Pascal, T. J., Rush '31, Bridgeport
*Pascale, J. F., Univ. Chicago '59, East Amherst, New York (New Haven County)
Pascual, R. S., Un. of the East '64, New London
*Pasetto, E., Vermont '36, Waterbury
*Paslawski, W., Akademia Medzcyna Poland '54, Windsor
*Pasquariello, D. W., Naples '36, Bridgeport
*Passarelli, M. N., Yale '59, New Haven
*Passaretti, M., Tufts '68, Manchester
*Pastel, H., Columbia '48, Manchester
*Pasternak, H. S., SUNY '60, Hartford
Pasternak, M., Toronto '36, Sarasota, Florida (New Haven County)
Pathak, J. A., Baroda Med Sch. '66, Milford (Fairfield County)
Pathak, K. J., M. J. Med. Sch. '63, Milford (Fairfield County)
*Patil, V. M., Grant Med. College '68, Danbury
Patterson, E. S., Iowa '54, Meriden
Patterson, G. A., Tufts Univ. '55, Norwalk
*Patterson, H. C., Bowman Gray '45, Danbury
Patterson, J. W., Western Reserve '49, Farmington
*Patterson, M. B., Boston '45, Greenwich
Pattillo, J. G., Un. Geneva '64, Windsor
Paulhus, J. J., New Jersey '70, Putnam
*Paust, J. C., Wisconsin '67, Louisville, Kentucky (New Haven County)
Pablo, L. J., Mainz, W. Germany '55, Derby
Pavlo, M. M., Univ. Prague '45, Derby
Peacock, A. U., Rush '33, Hartford
*Pearce, M. G., Texas '22, Austin, Texas (Fairfield County)
Pearlstein, A. T., Chicago '63, Derby
Pearlstone, A. D., State Univ. N. Y. '55, Fairfield
Peck, A. S., Jr., N.Y.U. '67, Hartford
*Peck, B. C., Long Island '31, New Britain
Peck, M. S., Western Reserve '63, New Preston
Pella, J., Havana '42, Middletown
*Pellegrino, E. D., N.Y.U. '44, New Haven
*Pelliccia, O., Jr., Johns Hopkins '39, New Haven
*Pelz, K. S., Vienna '32, Clinton (New Haven County)
Pembrook, R. C., Minnesota '63, New Haven
Pendagast, E. L., Jr., New York '58, Fairfield
Penner, S. L., Columbia '34, Bridgeport
*Pennington, R. B., Virginia '51, Middletown
*Pentz, P. G., Jefferson '61, Hartford
*Pepe, A. J., Maryland '35, Ansonia
*Pepe, V., Yale '46, Meriden
*Pepper, D. S., Pennsylvania '32, Gladwyne, Pennsylvania (Hartford County)
*Perakos, G. P., Georgetown '32, Kensington
Peralta, C., Santo Domingo '50, Bridgeport
*Perkins, J. A., McGill '41, Hartford
*Perkins, J. H., Pennsylvania '66, Hartford
Perlin, L., Lausanne '59, Middletown
Perlis, S. J., Michigan '50, Westport
Perlman, A. M., N. Y. U. '58, West Hartford
Perlman, J. M., State Univ. N. Y. '63, Bridgeport
Perlman, S., N.Y.U. '56, Hartford
Perlswig, E. A., Pennsylvania '48, New Haven
Pernetti, A. M., N. Y. Med. Coll. '29 Niantic (Middlesex County)
*Perry, D. D., N. Y. Med. Coll. '45, Bristol
*Persons, R. E., Syracuse '43, Meriden

*Pesce, J. R., Louvain '67, Bridgeport
Pesiri, R. A., Ottawa '59, Stamford
Pet, D., Maryland '32, Middletown (Hartford County)
*Peters, D. H., Tufts '56, Kent
*Peterson, C. G., Jr., Yale '55, Willimantic
*Peterson, D. M., Pennsylvania '56, New London
*Peterson, R. C., Yale '48, Stratford
Peterson, W. S., Yale '71, Waterbury
Petrea, I., Bucharest Univ. '51, New Haven
*Petrelli, E. A., Georgetown '66, New Haven
*Petrelli, J., Yale '25, New Haven
*Petrie, S. J., Temple '50, Ansonia
*Petrillo, C., Yale '38, New Haven
Petruschow, A., Frankfurt '48, Newtown
Pezzimenti, J. F., Creighton '65, Danbury
*Phelps, M. O., McGill '29, Hartford
*Philbrick, C. J., Jr., Tufts '55, Milford
Philips, E. S., New York Med. Coll. '68, New Britain
*Phillips, C. C., Louisville '49, New Haven
*Phillips, K. T., Tufts '19, El Cajon, California (Windham County)
Phillips, N. T., Boston '44, Norwich
Phinney, A. O., Columbia '53, Hartford
*Piacente, S. S., Rochester '40, Hartford
*Piazza, G. J., Boston '32, Orange
Piccirillo, A. V., Yale '54, Wallingford
*Piccolo, P. A., Maryland '37, New Haven
*Pickett, L. K., Yale '44, New Haven
*Pierce, J. A., Duke '55, Wethersfield
*Pierce, J. A., Georgetown '50, Newington
Pierce, J. M., Tufts '62, Winsted
*Pierson, L. A., Tufts '27, Meriden
Pierson, P. S., Columbia '44, Essex
*Pike, M. M., Harvard '25, Farmington
Pilot, M. L., Illinois '48, Westport (New Haven County)
*Pimpinella, R. J., Rochester '60, Torrington
*Pina, B. D., Howard '69, East Hartford
Pincus, J. H., P & S Columbia '60, New Haven
Pineiro, E., Un. De Navarda '66, Bridgeport
Pinkes, A. H., Lausanne '62, New Haven
Pinkes, S., Tufts '50, Hartford
Piotrowska-Nyerick, K. I., Warsaw '57, Orange
*Pious, W. L., Jefferson '32, Clewiston, Florida (New Haven County)
Piro, J. F., Georgetown '56, Norwalk
Pisarczyk, M. J., Univ. Colorado '70, New Haven
Piscatelli, R. L., Tufts '61, Waterbury
*Pisetsky, M. M., Tufts '61, Hartford
*Pitegoff, C. H., St. Louis '40, New Haven
*Pitegoff, G. I., St. Louis '37, Hartford
Pito, V. J., de Napoli '56, New Britain
*Pitts, N. E., Sheffield, England '52, Stonington
Pizzo, P. S., N. Y. U. '45, Hartford
Plakins, H. G., Univ. of Zurich '52, Wallingford
*Plankeel, J. P., Northwestern '69, Mystic
Platt, J. M., Physicians & Surgeons '57, Hartford
*Platz, E. J., Pennsylvania '43, Glastonbury
*Platz, J., Cologne '31, Manchester
Plaut, E. A., Columbia '53, Hartford
Pleban, W. E., Louvain '64, Bridgeport
*Pocock, H. D., Jr., Univ. Cincinnati '43, Fairfield
*Poczabut, J. S., Vermont '41, Stamford
Poirier, T. M., Georgetown '34, Windsor
*Pola, W. E., Louisville '32, New Britain
*Polayes, I. M., Albany '59, New Haven
*Polito, J. C., N. Y. Med. Coll. '52, Torrington
*Polivy, C., N. Y. U. '42, Hartford
*Pool, J. L., Columbia '34, Norwalk
Pope, F. J., Albany '73, Wethersfield
*Pope, R. H., Johns Hopkins '45, Bridgeport
Portnoy, L. M., St. Univ. New York '59, Bridgeport
Posada, H., Un. Antioquia '62, Waterbury
Poupko, G. G., Jefferson '69, Waterbury
*Poutas, J. J., Harvard '30, Old Greenwich
*Poverman, D., Vermont '32, New Haven
*Powell, B., Havana Un. '60, Norwich
*Powell, C. P., Howard '48, Hartford
Powell, N. R., Yale '60, Wethersfield
Powers, E. D., New York '52, Hartford
Prangley, A. G., Jr., Cornell '52, Greenwich
*Pratt, H. S., Louisiana State '58, Meriden
*Preble, C. R., Washington '53 Glastonbury
Prescott, B. D., McGill Univ. '61, Storrs
*Prestley, W. F., Harvard '40, Hartford
Preston, N., Albany '47, Waterbury
*Preston, T. R., Yale '25, West Hartford
Price, J. T., New York Med. Coll. '63, Glastonbury
Prince, M. L., New Jersey '61, Danbury
Pringle, E. W., Tufts '66, Higganum
*Prins, S. A., Amsterdam '31, Middletown
Prioli, K. M., Seton Hall '60, Norwich
*Privitera, J. H., Med. Coll. Virginia '69, Torrington
*Prokesch, C. E., N. Y. Med. Coll. '49, New London
*Prokop, E. K., Florida '70, New Haven
Prokop, J. D., Yale '59, Stamford
Prosnitz, L. R., St. Univ. New York '61, New Haven
*Prosser, F. D., Cornell '28, Putnam
*Prouty, R. L., Ohio St. '49, Norfolk
Pruett, K. D., Tufts '69, Guilford
Prunier, J. H., Cornell '56, Greenwich
*Pua, P. K., Philippines '58, Bridgeport
Pukay, B., Ohio St. '55, Mystic
Pulaski, J. E., Georgetown '44, Hartford
*Pullen, E. M., Cornell '24, New Canaan
*Pullen, R. D., Yale '54, Windsor
Pullen, R. W., Yale '21, West Germany (Hartford County)
*Purcell, D. P., Nat'l Univ. Dublin, Ireland '56, Manchester
Puri, S., All India Insti. of Med. Sciences '68, Farmington
*Purnell, M. A., Boston '49, Rockville
*Purnell, O. J., Cornell '42, Rockville
*Purney, J., McGill '39, Bristol
Purpora, D. P., Un. Bologna '71, Derby
*Pyrtek, L. J., Rush '42, Hartford
*Pyun, K. S., Severance Union Med. Coll. '57, Meriden

Querijero, G. B., Un. East Philippines '64, Waterbury
Quigley, W. F., New York Med. Coll. '56, Waterbury
*Quintiliani, A., Harvard '29, Norwich
Quinto, E. L., Lausanne '59, Hartford

Rabinovitch, P. I., Vermont '63, Waterford
Rablen, E. C., Graz, Austria '50, Quaker Hill
*Rabuffo, J. V., Georgetown '65, Middletown
Raccuglia, G., Rome, Italy '50, New Haven
Rackliffe, R. W., McGill '52, New Britain
Radding, P., Harvard '48, Hartford
Radom, M. M., Jefferson '25, Hartford
Radowiecki, M. W., N. Y. Med. '43, Hamden
Raff, I. L., N. Y. Med. Coll. '64, Danbury
Raff, N. C., Johns Hopkins '61, Westport
*Raffa, J., Columbia '34, Glastonbury
*Raffaele, F. J., W. Ontario '30, Stamford
Rafkind, A. B., Paris '37, Middletown
Ragaza, A. T., Univ. of The East '66, Milford
*Ragaza, E. P., Santo Tomas '63, New Haven
*Ragland, S., Jr., Med. Coll. Virginia '50, Colebrook
*Ragusa, R. P., Georgetown '51, Bridgeport
Raheb, E. B., Georgetown '56, Danielson
Rainville, T. J., St. Univ. New York '61, Stamford
*Ralph, F. T., Temple '43, Darien
Ramachandran, M., Colombo, Ceylon '66, Bridgeport
*Ramanan, S. V., Univ. Madras, '73, Hartford

*Ramirez, L. M., National Univ. '54, Bridgeport
Randolph, M. F., Rochester '43, Danbury
Ranganathan, V., Madras Med. Coll. '53, Rocky Hill
Ranieri, A., Jr., Un. Virginia '71, New Haven
Ranish, M., Upstate '67, Waterbury
Rankin, B. F., McGill '19, West Hartford
Rankin, C., Nebraska '43, West Hartford
*Ransome, O. J., McGill '69, Naugatuck
*Raphael, M. C., Leiden '53, Southbury
*Raphan, H., Un. Basle (Switz) '65, Waterford
Rapkin, R. M., Tufts '65, Guilford
Rapoport, A. M., S. U. N. Y. '66, Stamford
Rapoport, L. M., N. Y. Med. Coll. '50, Milford
Rapoport, M., Cincinnati '64, Bridgeport
Rappaport, L. N., Columbia '64, Bristol
*Rasmussen, H. N., Tufts '25, Uncasville
Rathey, U. K., Munich '53, Wallingford
Rauch, E. A., Far Eastern '65, Cheshire
*Rawls, C., Med. Coll. Va. '31, Stamford
Ray, M. E., S. U. N. Y. Downstate '69, Fairfield
*Raycroft, J. F., St. Univ. N. Y. '61, Hartford
*Read, F. A., Yale '34, Riverside
*Reade, E. G., Jefferson '16, Southern Pines, North Carolina (Litchfield County)
Reardon, G. E., Albany '56, Hartford
*Reber, R. E., Columbia '62, Greenwich
Redlich, F. C., Vienna '35, New Haven
Redmond, A. P., Guy's Hosp. Med. Sch. '57, Greenwich
*Redmond, J. W., St. Louis Un. '72, Meriden
Reed, D. M., N. Y. U. '67, Danbury
*Reed, D. P., Yale '59, Waterbury
*Reed, J. F., Cornell '41, Hartford
Reichenbach, A. E., Tufts '38, Waterbury
Reichgut, M. H., Pennsylvania '64, Bridgeport
*Reidy, J. C., George Washington '43, Winsted
Reilly, J. J., Georgetown '67, New London
Rein, J. M., Columbia P & S '63, Old Greenwich
*Reinfrank, R. F., Long Island '49, Hartford
Reinhard, W. J., Jefferson '51, Southport
Reiser, M. F., Cincinnati '43, New Haven
Reitwiesner, A. G., Long Island '38, New Fairfield
*Rem, E. A., Long Island '47, New Canaan
*Renda, J. L., Yale '68, Waterbury
Renehan, J. M., Tufts '28, Ansonia
Rentsch, J. B., Virginia '55, Glastonbury
*Rentsch, S. B., Michigan '23, Derby
Rentsch, S. B., Jr., Virginia '54, Glastonbury
*Rentz, R. E., Cornell '55, West Hartford
*Resnick, J. S., Pennsylvania '59, Stamford
*Resnik, E., McGill '30, New Britain
*Resnik, H., Johns Hopkins '31, Bridgeport
*Resnik, W. H., Johns Hopkins '21, Stamford
*Reyelt, W. P., Jr., Med. Coll. Virginia '60, Sharon
Reyes, C. S., Santo Tomas '68, Rockville
*Reynolds, J. A., Tufts '36, Waterbury
*Reynolds, R. G., Harvard '26, West Hartford
*Reynolds, W. M., Columbia '31, Stonington (Fairfield County)
Rha, C. K., Seoul National Univ. '64, Stamford
*Rhame, H. E., Jr., George Washington '50, Fairfield
Rhee, C. H., Seoul Nat'l. Un. '61, Bridgeport
Rhee, S. S., Seoul Nat'l. Un. '58, Hartford
Rhinehart, J. W., N. Y. Med. Coll. '55, Newtown
Rhoades, E. J., Yale '43, New Haven
*Ribner, H., Tufts '34, Fairfield
*Ricca, R. A., Pennsylvania '40, Glastonbury
*Riccio, F. J., Rome '42, Bridgeport
Riccio, J. S., St. Louis '37, Middlebury
*Riccitelli, M. L., Yale '22, New Haven
*Rich, C. F., Pennsylvania '64, Hartford
*Richar, W. J., Cornell '46, Stamford
Richards, N. R., Uausanne '55, Waterbury
*Richards, W. R., Cornell '35, New Haven
*Richeimer, W. G., McGill Un. '69, Norwich
Richman, D. P., N. Y. U. '42, South Norwalk
Richman, S. M., Washington '58, Bloomfield
*Ridgway, W. S., Virginia '46, Stamford
*Ridlon, H. C., Columbia P. & S. '58, Hartford
Riege, D. H., Yale '46, West Hartford
Riemer, H. O., Un. Innsbruck '39, Shelton (New Haven County)
Rifkin, B. G., Cape Town '54, New Haven
*Rigney, B. F., Yale '67, New Haven
*Rilance, A. B., McGill '31, New Haven
*Riley, J. A., Yale '51, New Haven
Rimai, M. L., Bruxelles '66, Bloomfield
Rinaldi, M. J., St. Louis '65, Hartford
Rinaudo, P. A., Torino '45, Berlin (New Haven County)
*Rindge, N. P., Yale '35, Clinton
*Ringrose, V. P., Jr., Rochester '56, New Britain
*Rini, J. M., Harvard '68, Stamford
Rinzler, D. M., Yale '71, Gales Ferry
Riordan, C. E., Harvard '63, New Haven
Riordan, W. D., N. Y. Med. Coll. '43, West Hartford (New Haven County)
*Ripps, R. A., Tufts '68, Danbury
Ritland, G. D., Stanford '66, Hartford
Ritter, M. E., Franfurt '50, Meriden
Rixon, J. D., Creighton '70, West Hartford
Roach, D. P., Nat'l Univ., Ireland '56, Shelton (New Haven County)
Roach, J. P., N. Y. Med. Coll. '58, Bridgeport
*Robb, S. A., Cornell '40, Meriden
Robbins, D. I., Georgetown '62, Bridgeport
*Robbins, J., Paris '37, Thompsonville
*Robbins, K. M., Albert Einstein '67, Middletown
Roberge, G. E., Yale '38, Stratford
*Roberts, D. J., Jr., Cornell '51, Manchester
Roberts, G. D., Dalhousie '60, Westport
*Roberts, L. E., Un. Colorado '69, Hartford
Roberts, M. P., Yale '57, Hartford
Roberts, R. W., Cornell '58, New Britain
Robertson, A. R., Temple '52, Torrington
Robertson, R. W., Albany '66, Hartford
Robin, N. I., Downstate Med. Ctr. '65, Stamford
*Robins, R. J., State Univ. N. Y. '62, Westport
Robinson, C. H., Jr., Yale '60, New London
*Robinson, F., Cornell '42, New Haven
*Robinson, J. C., Vermont '45, Hartford
*Robinson, L. A., Jr., Tufts '54, Danielson
Robinson, P. D., Jr., Un. Cincinnati '62, Hartford
Robinson, W. J., Long Island '21, Christiansted, St. Croix (Hartford County)
Robison, R. C., Yale '36, Noroton
Robitaille, G. A., Tufts '60, Waterbury
*Robles, M. J., Philippines '58, Bristol
*Rocco, A. R., Naples '57, West Havein
*Rocco, M. P., Georgetown '41, Hartford
Rockwell, W. J., Albany '73, Bridgeport
*Rodda, T. D., Loyola Univ. '61, Greenwich
*Rodner, R. D., S.U.N.Y. '68, Manchester
Rodriguez, J. C., Santo Domingo '52, Stafford Springs
Roe, C. F., Univ. Aberdeen '55, New London
*Rofrano, D. A., Georgetown '51, Wolcott
*Rogers, H. C., Columbia P. & S. '55, West Hartford
*Rogers, J. F., Duke '42, Stamford
*Rogers, M. C., Johns Hopkins '32, Stamford
*Rogers, R. P., Harvard '25, North Chatham, Mass. (Fairfield County)

Rogers, W. J., N. Y. U. ’48, Norwalk
*Rogol, L., Long Island ’33, Danbury
*Rogol, O., Dalhousie ’32, Seymour
Rogowski, J. P., Georgetown ’56, Fairfield
*Roh, C. E., Columbia ’41, Hartford
Romaniello, R. J., Columbia ’27, Elmwood
Romanos, D. R., Tufts ’67, Torrington
*Romeo, S. G., New Jersey ’64, Manchester
Romero, R. O., Univ. of The East ’67, Waterbury
Root, H. F., Jr., Tufts ’55, New Britain
*Root, J. H., Jr., Syracuse ’43, Woodbridge
*Root, M. T., Cornell ’18, West Hartford
*Root, S. A., Cornell ’19, West Hartford
*Rosahn, P. D., N. Y. U. ’28, Kensington
*Rose, G. J., Boston Univ. ’47, Rowayton
Rose, T. H., Johns Hopkins ’63, Danbury
Rosen, M. W., New York Un. ’67, Southbury
Rosen, T., Tufts ’33, Manchester
Rosenbaum, H. M., Utah ’48, Waterbury
*Rosenbaum, H. T., State Univ. New York ’57, Middletown
Rosenbaum, N., Temple ’56, Bridgeport
*Rosenberg, A. H., Columbia ’59, Greenwich
*Rosenberg, B. L., McGill ’43, Danbury
Rosenberg, B. S., Louisville ’70, Waterbury
*Rosenberg, C. H., Buffalo ’44, Stamford
*Rosenberg, H. A., Vienna ’37, Bridgeport
*Rosenberg, J. E., Northwestern ’66, Hartford
*Rosenberg, M., Manitoba ’55, Hartford
Rosenberg, M. A., Lausanne ’54, Bridgeport
*Rosenberg, M. Z., Yale ’49, Willimantic
Rosenberg, P. E., Univ. Pennsylvania ’72, Willimantic
*Rosenberg, P. J., Tufts ’65, Norwich
*Rosenberg, S., American Univ. Beirut ’39, Bridgeport
Rosenbloom, M. L., N. Y. U. ’60, Branford
*Rosenblum, R. A., Albert Einstein ’67, New London
Rosenfeld, G. M., St. Un. N. Y. ’72, Portland
Rosenkranz, B. M., Chicago Med. Sch. ’66, West Hartford
Rosenthal, B. B., Bellevue ’30, Milford
Rosenthal, I. I., Tufts ’56, Bloomfield
*Rosenthal, M. B., Creighton ’34, Hartford

Rosenworcel, E., S.U.N.Y. ’68, Hartford
Rosman, M., N. Y. U. ’67, Bridgeport
Rosnagle, R. S., Western Reserve ’57, New Haven
Rosner, F., Vienna ’37, Bridgeport
*Ross, W. D., State Univ. N.Y. ’48, Hartford
*Rossbaum, R. P., Seton Hall ’62, Hartfword
Rossi, J. G., Georgetown ’50, New Haven
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Rossi, M. A., St. Louis ’62, Hartford
Rossman, A. M., Johns Hopkins ’70, Hamden
Rosson, R. S., Harvard ’58, Hartford
Rost, D. M., Iowa ’63, Waterbury
Rostenberg, P. O., Arkansas ’71, New Fairfield
Rotatori, E. S., Georgetown ’58, Hartford
Rotenberg, D., Boston ’65, Hartford
Roth, F. E., N. Y. U. ’25, Hartford
Roth, M. S., N. Y. U. ’59, Hartford
*Roth, O., Vienna ’37, New Haven
*Roth, S., Lausanne ’59, New Haven
Roth, S. Z., Vienna ’36, New Haven
*Rothblatt, R., Tufts ’32, Willimantic
Rothfeld, P. M., Yale ’72, Waterbury
*Rothstein, D., L. I. College Hospital ’25, Southbury
*Rothstein, I., N. Y. U. ’33, West Hartford
*Rouman, J. C., Northwestern ’53, Hartford
Rourke, T. A., Columbia ’37, Greenwich
*Rousseau, D. G., Vermont ’45, Taftville
*Roussis, K., Un. Thessaloniki, Greece ’58, Hartford

Rowett, D., Penn ’71, Old Saybrook
*Rozen, A. A., Yale ’37, Hamden
Rozycki, J. S., Academy of Med., Poland ’53, Waterbury
*Ruan, W., Chiangmai ’69, Bridgeport
*Ruben, H. L., Northwestern Un. ’66, New Haven
Rubenstein, J. R., Un. Texas at San Antonio ’71, Waterbury
Rubin, A., Geneva ’29, Hartford
*Rubin, A. A., Utah ’48, New Haven
Rubin, L. R., Syracuse ’58, Danbury
*Rubin, M. L., Harvard ’61, Manchester
*Rubinow, M. B., Long Island ’42, Manchester
Rubenstein, H. M., Western Ontario ’70, Stamford
*Ruby, M. H., Columbia ’21, Waterbury
Ruby, R. J., Baylor ’36, Waterbury
Rucker, L. G., Meharry ’49, Storrs (Windham County)
Ruderman, M., Hahnemann ’61, Hartford
Rudnicki, R. D., S.U.N.Y. Downstate ’68, West Hartford
Ruiz, R. R., Havana ’43, Danbury
Rusch, O. F., Un. Munich ’64, Bridgeport
Russell, D. G., Tufts ’54, Bristol
Russell, G. G., Harvard ’19, West Hartford
*Russell, T. H., Yale ’10, Hamden
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*Russman, B. S., Tufts Univ. ’63, Newington
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Russo, R. D., Jr., Tulane ’73, Bridgeport
*Russo, J. N., Vermont ’45, Hartford
*Russo, J. R., Columbia ’43, Bridgeport
*Russo, R. D., Georgetown ’43, Bridgeport
*Russolillo, G. E., George Washington ’68, Hartford
*Ruszkowski, R. J., Med. Coll. Wisconsin ’68, Waterbury
*Rutherford, J. W., Tufts ’53, New Canaan
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*Ryan, J. J., Columbia ’41, Stamford
Ryan, M. J., Jr., Kansas ’67, Kansas City Missouri (Hartford County)
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*Ryan, V. G., Yale ’34, Portland
*Ryan, W. A., McGill ’45, Stamford
*Ryan, W. D., N. Y. Medical ’53, Wethersfield
Ryan, W. F., Jr., Tufts ’47, Hartford
Saccio, J. D., Yale ’59, New Haven
*Sacco, J. J., Loyola ’55, Norwalk
Sachs, F. L., Columbia ’63, New Haven
Sachs, J. J., N. Y. U. ’40, Hartford
*Sacks, H. S., Cornell ’52, Westport
*Sacks, K. L., Pittsburgh ’69, Fairfield
*Sadowski, J. S., Georgetown ’55, Hartford
*Safford, T., Jr., Long Island ’47, Ridgefield
Saidel, J. W., Chile ’38, Bridgeport
Saini, O. P., Med. Coll. Amristar, India ’63, Manchester
*St. James, A. T., Long Island ’44, Wallingford
*St. John, L. A., Fordham ’20, Wethersfield
*St. John, N. E., George Washington ’48, Wethersfield
Salerno, N. R., Jefferson ’64, Hartford
*Salerno, S. A., Georgetown ’59, Greenwich
Salgado, A. G., Un. of the East Med. Ctr. ’69, Hartford
*Salib, F. B., Alexander’s Fac. Med. ’65, Hartford
*Salinger, R., Johns Hopkins ’25, New Haven
Sallick, R. M., Cornell ’62, Norwalk
*Saltzman, M., Berne, Switzerland ’58, Plainville
*Saltzman, S. H., State Univ. N. Y. ’51, Hartford
Salvio, D. G., Padova Univ. ’57, Bridgeport
Salzman, M. A., Un. Guadalajara, Mexico ’72, Cheshire
Samai, H., Tehran Med. Sch. ’63, Norwalk
*Samponaro, N., Johns Hopkins ’29, Torrington

*Samson, D. P., Columbia '43, Thomaston
Samson, D. W., New Jersey '63, New Britain
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Sanathanamurthy, M. G., Bangalore '71, Bridgeport
Sanchez, R., Caldas Univ. '66, Danbury
*Sandler, G., Tulane '50, Willimantic
*Sandler, M. J., Tulane '55, Willimantic
*Sandulli, G. R., Tufts '29, Watertown (New Haven County)
Sangree, M. H., Jr., Cornell '59, Waterbury
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*Santagata, P. W., Georgetown '55, Stamford
Santella, S. M., Creighton '57, Bridgeport
*Santiccioli, A. B., Bologna '40, Norwich
Santilli, J., Jr., Georgetown '68, Bridgeport
Santomauro, A. G., Columbia P & S '69, Bridgeport
*Santopietro, O. O., N. Y. Med. Coll. '48, Waterbury
Santoro, G. M., Cornell '24, Prospect
Saperstein, S., Chicago Med. '60, Danbury
Saracco, F. P., Catholic Un. Belgium '66, Hamden
Saracino, L., Bari '44, Norwich
*Saraczynski, D. L., Zurich '56, Bridgeport
Sarter, H., Un. Zurich, Switz. '57, West Hartford
Sasaki, C. T., Yale '66, New Haven
Sataline, L. R., Bologna '56, Cheshire
Satlof, D. M., Emory '61, Hartford
*Saunders, F. P., Boston '58, Danbury
*Saunders, G. R., Cornell '41, Old Saybrook
Saunders, W. L., Rochester '49, Elmwood
Sava, G. A., Ottawa '57, Stamford
Savak, J. E., Boston '45, Springdale
Savarese, E. C., Univ. Rome '71, Waterbury
*Savin, R. C., Florida '61, New Haven
*Savin, S., Vermont '45, Bridgeport
*Savitsky, E., N. Y. C. '41, Stamford
*Sawicki, L. A., Boston '48, Wallingford
*Sawyer, C. E., Tufts '51, Stafford Springs
*Sawyer, J. D., Vermont '44, Norwich
Sax, R. E., Western Ontario '63, Bridgeport
*Saxe, L. P., Kansas '46, New London
Saxon, R. J., Upstate N. Y. '69, Bloomfield
Sayers, D. O'C., Tufts '35, Waterbury
Sayers, J. H., Tufts '56, Hartford
*Sayers, J. J., Tufts '35, Hartford
*Sayers, R., Univ. Lourain '53, Madison
Scalice, R. A., N. Y. Med. Coll. '67, Torrington
*Scalzi, L. C., Bologna '37, Bridgeport
*Scarpa, F. J., Johns Hopkins '67, Derby
*Scavetta, J. F., Loyola '67, New Canaan
*Scavo, V. J., N. Y. U. '58, Bridgeport
Schachter, E. N., N. Y. U. '68, New Haven
*Schapira, H. J., Univ. Geneva '62, New Haven
*Schardt, W. M., N. Y. U. '45, Manchester
Schare, G. D., Med. Coll. Virginia '67, Bridgeport
Schatten, S. S., N. Y. U. '31, West Hartford
Schear, W. A., N. Y. Med. Coll. '54, Thompsonville
Schechtman, C. T., Vermont '26, New Britain
*Scheer, C. W., Stanford '56, Meriden
*Scheer, E. H., Tufts '45. New Britain
Scheig, R. L., Yale '56, Newington
*Schemm, C. M., Un. Utah '68, New Britain
*Scherr, E. S., Geneva '57, Branford
Scherr, E. H., Med. Coll. Va. '46, New Haven
Schipke, R. E., N. Y. Med. Coll. '46, West Hartford
Schioppo, D. B., Seton Hall '63, New Haven
Schlein, A. P., Jefferson '65, Bridgeport
Schlessel, T. E., Rochester '55, Hamden
Schloss, W. A., N. Y. U. '40, West Hartford
Schmidt, C. W., Buenos Aires Un. '57, New London
*Schmidt, J. L., West Virginia '64, Mystic
Schmiedeck, A. A., Vienna '49, Weston
*Schmitt, D., Physicians & Surgeons '54, Old Greenwich
Schmoll, R. D., Pennsylvania '57, Bloomfield
Schnap, I., Long Island '29, Hartford
Schneider, R. G., N. Y. U. '56, Westport
*Schneider, W., George Washington '30, Rockville
Schneiderman, W. L., N. Y. Med. Coll. '74, New Hartford
*Schoenwald, H. R., Georgetown '58, Darien
Scholan, F. J., Tufts '55, Southport
*Scholand, J. F., Harvard '66, New Britain
Scholhamer, C. F., Yale '42, Hamden
Scholhamer, C. F., Jr., Yale '72, New Haven
Scholz, H. D., Breslaw '51, New London
Schowalter, J. E., Wisconsin '60, New Haven
Schreiber, S. J., Chicago '58, New Haven
*Schreuder, O. B., Oregon '24, Marlborough
Schrier, R. I., Chicago '52, New Haven
Schubert, A. S., Georgetown '64, Avon
Schulman, P. L., St. Univ. New York '58, Norwalk
Schultz, M., N. Y. U. '43, Westport
*Schupack, S. D., Tufts '24, New Britain
*Schurgast, A. W., Cincinnati '45, Meriden
Schuster, C. L., N. Y. U. '64, New Canaan
*Schuster, H. S., N. Y. U. '64, West Hartford
*Schwartz, A. H., N. Y. U. '58, New Haven
*Schwartz, A. J., Columbia '59, Stamford
*Schwartz, G. L., Cincinnati '67, Rockville
Schwartz, H., Colorado '43, Chicago, Illinois (Hartford County)
*Schwartz, H. N., Med. Coll. Virginia '37, Hartford
Schwartz, K. V., Cornell '71, Derby
Schwartz, L., Tufts '57, Hartford
*Schwartz, M. D., Yale '59, New Haven
*Schwartz, M. L., N. Y. Med. Coll. '68, New Haven
*Schwartz, P. E., Tufts '31, Middletown
*Schwartz, P. E., S. U. N. Y. '60, Norwalk
Schwartz, R. D., State Univ. Brooklyn '52, Danbury
*Schwartz, S. S., Tufts '46, New Haven
*Schwarz, H. P., Vienna '38, Norwich
*Schweizer, R. T., Tufts '64, Hartford
*Schwimmer, R. R., Temple '49, Greenwich
Scialla, A. V., New Jersey '66, Hamden
Sciarillo, J. J., Stritch School of Medicine '50, Bridgeport
*Scoville, W. B., Pennsylvania '32, Hartford
Scudder, W. T., Physicians & Surgeons '55, Simsbury
Sculco, M. J., Boston '69, Norwich
*Scull, E., Jefferson '48, Hartford
Scully, H. F., N. Y. Med. Coll. '56, West Hartford
*Scully, R. T., Georgetown '35, New Britan
*Seah, C. H., Royal Coll. Surgeons, Ireland '64, New Haven
Seamonds, P., Univ. of Sydney, Australia '63, Greenwich
*Sears, L., Harvard '29, Norwich
*Secor, R. C., Upstate Med. Ctr. '39, Hartford
Segall, E. M., Howard '58, Waterbury
Segel, S., Vermont '35, Norwich
*Seguljic, N. J., Georgetown '55, Bristol
Seibert, A. F., Yale '27, Berlin
Seide, M. J., Chicago '53, Hartford
Seigle, A. M., S. U. N. Y. '70, New Haven
*Seigle, S. P., Harvard '40, Hartford
*Sekerak, R. J., Maryland '34, Bridgeport
Selcow, J. E., Vermont '59, Hartford
Seleman, A. W., Georgetown '55, Torrington
*Seliger, G., St. Univ. N. Y. '62, Waterbury
*Seligson, D., Utah '46, New Haven
*Sella, E. J., Stritch, Loyola '66, New Haven
*Sellner, H. A., Columbia '67, Danbury
Selsky, L. M., Johns Hopkins '65, Bristol
Selzer, R. A., Albany '53, New Haven
Senathirajah, K. N., Univ. Ceylon '69, Bridgeport
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Senn, M. J. E., Wisconsin '27, New Haven
*Sennett, E. J., Vermont '43, Hartford
Serafini, F. F., Univ. Bologna '70, Hartford
Serbin, A. F., Rush '33, Hartford
Sereda, L. E., Toronto '53, Bloomfield
*Serena, F. A., Hahnemann '40, Norwalk
Serena, J. M., Hahnemann '41, Norwalk
Sereny, P., Albert Einstein '72, West Hartford
Serrell, H. P., Cornell '39, Greenwich
*Schafer, M. E., Pennsylvania '50, Hartford
*Shafto, W. A., Edinburgh '60, Danbury
Shah, S. M., Seth G. S. Med. Coll. '67, Norwalk
*Shah, S. M., T.N.M. Coll. India '63, Hartford
Shah, U. C., Grant Med. Coll. '50, Bridgeport
*Shakibai, A., Tehran Un. '65, Manchester
Shanahan, S. A., Med. Coll. Pennsylvania '69, Greenwich
*Shanley, W. T., N. Y. Med. Coll. '61, Bridgeport
*Shapiro, B. S., Buffalo '57, Ansonia
*Shapiro, D., N. Y. Med. Coll. '71, Bethel
Shapiro, D. W., N. Y. U., '71, New Haven
Shapiro, H. I., Chicago '63, Westport
Shapiro, H. O., Alabama '63, Vernon
Shapiro, H. R., S. U. N. Y. '69, Hartford
Shapiro, J. R., Cincinnati '74, Westport
Shapiro, M. M., S. U. N. Y. '67, Waterbury
*Shapiro, R., Pennsylvania '39, New Haven
Shapiro, R. L., N. Y. Med. Coll. '61, Hartford
*Shapter, R. K., Dalhousie Univ. '58, Middletown
Sharian, K. E., Teheran Un. '57, Waterbury
*Sharon, H. J., Berne '58, New Britain
*Sharon, M. R., Seton Hall '62, Rockville
Shaw, G. L., N. J. College Medicine '68, East Lyme
Shaw, K. A., Un. St. Tomas '65, Greenwich
*Shaw, L. E., Wom. Med. Coll. Pa. '22, New Preston (Fairfield County)
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Shea, J. P., N. Y. U. '46, Bridgeport
*Shea, M. S., Vermont '21, New Haven
*Shea, V. T., Tufts '31, Waterbury
*Shea, V. T., Jr., Nat'l. Un. Ireland '65, Waterbury
*Shea, W. P. III, Royal College, P & S, Ireland '71, West Hartford
Shealy, A. C., Boston '58, Waterbury
*Sheard, C., Toronto '39, Stamford
*Shearer, J. K., Albany '43, Waterbury
Sheehan, B. F., Indiana '66, Old Saybrook
Sheehan, F. G., Queen's Univ. Belfast '55, Middletown
Sheehan, G. D., Un. Coll. Dublin '65, Hartford
Sheehan, J. E., Long Island '47, Ridgefield
*Sheftell, F. D., N. Y. Med. Coll. '66, Stamford
Sheiman, R. A., Michigan '64, Bridgeport
Sheiman, S. C., Michigan '40, Bridgeport
Shelling, R. L., Boston '56, Milford
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Shenker, B. M., N. Y. Med. Coll. '38, Middletown
Shepard, W. M., Columbia '29, Putnam
Sheppard, E. C., New Jersey Coll. Med. '67, Westport
Sherlip, B. J., N. Y. Med. Coll. '55, Trumbull
*Sherman, B., George Washington '29, N. Indialantic, Florida (Middlesex County)
*Sherman, I. J., Johns Hopkins '40, Bridgeport
Sherman, J. A., Chicago '67, Waterbury
Sherman, R. B., Yale '58, New Hartford
Sherman, S. H., Columbia '34, Stamford
*Sherman, S. H., Cornell '32, Simsbury
Sherman, W. T., N. Y. U. '60, Danbury
Sherpick, W. E., Columbia '48, Farmington
Sherrington, H. J., Nat'l. Un. Mexico '63, Stamford
*Sherwood, H., N. Y. Med. Coll. '37, Middletown
*Sherwood, P. M., Boston '42, Hartford
Shield, D. E., Yale '70, Norwalk
Shiffman, I., St. Univ. New York '59, Meriden
Shiller, J. G., Columbia '52, Westport
Shimelman, N. M., McGill '67, New Haven
*Shimkin, P. M., Pennsylvania '65, Bridgeport
*Sholler, N. H., Hahnemann '43, Bridgeport
*Shoukimas, J., Harvard '42, Hartford
*Shoup, H. B., Jr., Indiana '35, Westport
*Shull, J. C., Harvard '36, Simsbury
*Shure, A. L., Tufts '27, Hamden
Shutkin, N. M., Northwestern '37, New Haven
*Shutkin, P. M., Cornell '60, New Canaan
*Sica, V. F., Louvain '57, Bridgeport
*Sicklick, E., Geneva '51, Hartford
*Siderides, C. I., Athens '52, Stamford
Siderides, L. E., Athens '52, Stamford
*Siefert, F. E., N. Y. Med. '60, Old Greenwich
Siegel, B. S., Cornell '57, New Haven
Siegel, K. C., Meharry Med. '69, Bridgeport
Siggins, L. D., Univ. Melbourne, Australia '59, New Haven
Sigman, R. L., Harvard '66, Hartford
Sikand, R. S., King Edward, Punjab '46, New Haven
Sikand, S. D., Punjab '49, Willimantic
*Siker, E., Women's Med. Pa. '43, Hartford
Sikorski, J. J., Basel '57, Derby
Silberberg, W. P., Duke '70, Ansonia
Silberman, C. G., Jefferson '50, Westport
*Silberstein, A. B., Downstate Med. Coll. '62, Middletown
*Silberstein, M. H., Berne '55, New Haven
Silk, M. R., N.Y.M.S. '62, Hartford
*Silliman, W. B., Jefferson '46, Windsor
Sillman, E., Columbia '48, Meriden
Silva, H. R., San-Marcos Un. '62, New Haven
Silver, H., Buffalo '57, Hartford
Silver, S. E., Columbia '62, New London
*Silverbach, S., Albany '70, Enfield (Tolland County)
*Silverberg, S. J., Columbia '21, New Haven
Silverman, C. K., Albert Einstein '72, Wilton
Silverman, D. R., St. Louis '63, Bridgeport
Silverman, J. P., N. Y. U. '65, New Haven
Silverman, N. R., N. Y. U. '64, Hamden
Silverman, S. M., St. Univ. Ghent, Belgium '72, Farmington
*Silverstein, D. M., Wayne State '59, Derby
Silverstein, H. R., Ohio State '65, Hartford
Silverstone, D. E., N. Y. Med. Coll. '73, New Haven
*Silvert, D. S., Manitoba '52, Danbury
Simeone, J. F., Yale '73, New Haven
Simkovitz, J., Havana '53, Bridgeport
*Simon, H. J., Colorado '43, Waco Texas (Fairfield County)
Simon, L. G., N. Y. U. '27, Norwalk
Simonds, J. R., Vermont '38, Washington Depot
Simonelli, J. M., Bologna '58, Danbury
Simpson, J. A., Georgetown '60, Bridgeport
*Simses, J. P., Tufts '37, Bridgeport
Simses, J. P., Jr., Tufts '69, Bridgeport
Sinatra, S. T., Albany '72, Manchester
Sindwani, D. R., A. I. I. M. S., India, Stafford Springs
Singer, B., N. Y. Med. Coll. '61, Norwalk
Singer, J. M., Yale '66, Westport
Sinnamon, R. C., Penn. '68, Durham
*Sinton, W. A., Boston '46, Danbury
Sires, W. O., Maryland '50, Fairfield
*Sirica, A. E., Johns Hopkins '26, Waterbury
*Sirkin, R. B., Harvard '55, New Britain
*Sirop, P. A., Brussels '58, Waterbury
*Sirot, G., State Univ. of N. Y. '51, New Haven
Sirota, H. H., Cambridge '37, East Hartford
*Sittambalam, E. J., Ceylon '69, New Britain
*Sivak, D. M., Univ. Louisville '69, Westport
Sklare, M. W., N. Y. U. '60, Madison

*Sklaver, J., Michigan '37, Waterbury
*Skluth, L. H., N. Y. U. '36, Norwalk
Skolnick, S. R., Univ. Heidelberg '69, Darien
*Skreczko, C. K., Jefferson '37, New Haven
Slater, D., N. Y. Med. Coll. '40, Hamden
Slater, G., Vienna '38, Stamford
*Slater, G. S., N. Y. Med. Coll. '44, New Britain
*Slater, J. A., N. Y. Med. Coll. '71, New Canaan
*Slater, M., Yale '24, Hamden
Slavin, J. D., Jr., Yale '66, Hartford
Slepian, J. Z., Bologna '68, Derby
Slossberg, D. S., Tufts '34, Bloomfield
*Slover, W. P., Jr., Boston '60, Hartford
*Slysz, L. B., Boston '27, New Britain
Small, A. R., N. Y. Med. Coll. '48, Bridgeport
Small, J. H., New York '54, Bridgeport
*Smeraldi, R. A., Ottawa '59, Stamford
*Smiley, S. S., St. Un. New York '59, Ansonia
Smith, D. B., Yale '58, Wallingford
*Smith, D. H., Syracuse '53, Manchester
*Smith, E. R., Yale '40, Meriden
*Smith, F. E., Jr., Comlubia '34, Salisbury
Smith, F. F., Howard '30, New Haven
Smith, G. W., Pittsburgh '69, Cheshire
*Smith, H. W., Yale '53, New Haven
*Smith, J. A., Western Reserve '35, Waterbury
Smith, J. D., Lausanne '62, West Hartford
*Smith, J. J., Maryland '30, Easton
*Smith, J. R. V., Pittsburgh '60, Hartford
*Smith, J. T., Long Island '41, Torrington
Smith, L. A., Albany '43, West Hartford
*Smith, L. K., Univ. of Rochester '44, Hartford
*Smith, L. M., Tufts '37, Stamford
Smith, N. E., Jr., Med. Coll. Virginia '66, Winsted
*Smith, R. D., McGill '54, Torrington
Smith, R. P., Harvard '43A, Branford
*Smith, S. G., Rochester '62, Manchester
*Smith, W. F., Cornell '34, West Hartford
Smith, W. L., Columbia '37, Hartford
Smolen, E. M., N. Y. U. '44, Fairfield
Smolen, R. L., N. Y. U. '50, Fairfield
*Snoke, A. W., Stamford '33, Hamden
*Snow, B., Tufts '57, New Haven
*Snurkowski, C. V., Georgetown '25, New Haven
Snyder, E. W., P & S '58, Deep River
*Snyder, H. L., Chicago '54, Manchester
Snyder, R. E., Indiana '72, Norwich
Soares, M. J., N. Y. Med. Coll. '57, Hartford
Sobin, B. A., S. U. N. Y. '70, Manchester
*Sokhos, D. R., Nat'l. Un. Athens '48, North Haven
Solano, H., Nat'l. Un. Mexico '66, New Britain
*Soletsky, H. B., N. Y. U. '62, Brookfield
Solin, M. E., Yale '73, Old Lyme
Sollosy, A., Tufts '27, Pompano Beach, Florida
Solomon, M., Michigan '56, Norwich
*Solomon, R. Z., Yale '39, Hartford
Solter, A. W., Yale '72, Middletown
Solway, R. I., Toronto '40, Westport
*Somogyi, B. B., S. U. N. Y. '65, Southington
Son, Y. H., Seoul Nat'l. Un. '50, New Haven
*Song, S., Korea '62, Manchester
Songco, M. F., Philippines '54, Norwich
Sonnen, V. G., Basel '46, Enfield (Tolland County)
*Soreff, L., Tufts '32, East Hampton
Sorge, D. V., St. Louis '59, Bridgeport
*Soriano, E. R., Philippines '52, Groton
Sornberger, C. F., Syracuse '40, Hampton
Sosa, J. B., Santo Domingo '59, Middletown
*Southwick, W. O., Nebraska '47, New Haven
Souvlis, C. D., Nat'l. Athens '47, Bridgeport
Spada, D. L., Un. Vermont '73, Simsbury
*Spalding, P. E., London Univ. '53, Portland
Spannaus, F. C., Jr., N. Y. U. '45, Roxbury (Fairfield County)
*Spector, N., Tufts '24, Willimantic
*Speer, C. S., Hahnemann '55, Hartford
*Speight, H. E., Georgetown '27, Middletown
*Spekter, L., Rochester '33, West Hartford
*Spencer, J. A. E., Yale '62, Greenwich
*Spencer, L. O., Tulane '26, Myrtle Beach, South Carolina (New Haven County)
*Spencer, S., Georgetown '39, Fairfield
*Speth, C. P., Heidelberg '68, Turlock, California (Fairfield County)
Spignesi, J. T., Georgetown '30, Wallingford
*Spillane, R. J., Washington '43, Hartford
*Spinelli, N. P. R., Yale '44, Devon (Fairfield County)
*Spinner, S., Tufts '35, New Haven
Spiro, H. M., Harvard '47, New Haven
*Spitz, H., Yale '43, New London
Sponzo, J. J., Tufts '38, Hartford
*Sprafke, D. F., Georgetown '63, New London
*Sprecace, G. A., State Univ. New York '57, New London
Springer, G. L., Yale '68, Norwich
Springer, T. D., Indiana '69, Hartford
Sproul, L. E., Harvard '58, Mystic
*Squattrito, U., Palmero '52, Darien
*Squillacote, V. J., Rome '34, New Britain
*Sreenivas, V. I., Govt. Med. Coll. Mysore '61, Orange
Srinivas, R. R., Prince of Wales '63, Waterford
Srinivasan, J. P., Christian Med. Coll., India '64, Bloomfield
Stabinksy, C., New York '55, Norwalk
*Stack, W. J., N. Y., Med. Coll. '48, Hartford
Staffieri, S., Naples '44, Danbury
Stahl, A. J., Un. Louvain '71, Waterbury
Stallworth, V. M., Meharry '59, Bridgeport
Stanberry, M. C., Univ. Arizona '64, Lyme
*Stanard, J. E., Syracuse '43, Waterbury
*Standish, E. M., Harvard '22, West Hartford
*Standish, H. C., Cornell '28, West Hartford
*Standish, W. A., Yale '25, Avon
*Stanford, J., Harvard '51, Essex
*Stankard, W. F., Jefferson '38, Stamford
Stanton, R. A., Physicians & Surgeons '72, Bridgeport (New Haven County)
Stanton, R. E., Boston '55, Manchester
Stapor, J. J., Long Island '47, Orange (Hartford County)
*Starr, R. M., Yale '26, Quaker Hill
Stathacos, E. J., North Carolina '57, Fairfield
*Staub, E. M., Albany '72, Fairfield
*Stavola, J. J., New York '56, Hartford
*Stearns, C. S., Yale '46, East Hartford
*Steckler, J. B., St. Un. New York '66, New Britain
*Steege, T. W., Yale '38, Hartford
*Steglich, C. P., Univ. Columbia '48, Stamford
Stein, M. L., N. Y. Univ. Coll. Med. '59, Milford
*Stein, S. A., Harvard '67, New Haven
Stein, S. C., Un. Virginia '56, New London
Steinberg, D. H., St. Univ. New York '59, Stamford
Steinberg, H., N. Y. Med. '54, Westport
Steinberg, M. G., N. Y. U. '68, Stamford
Steinberger, L., Royal Hungarian Eliz, '37, Norwalk
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Steller, R. E., Temple '53, Stamford
Stember, R. H., N. Y. U. '59, Norwalk
Stent, P. A., Georgetown '54, Norwalk
Stephenson, J. H., Cornell '51, Greenwich
Steremberg, Z., San Marcos Un. '63, Bridgeport
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*Stern, H., Tufts ’52, New Haven
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Stern, R., Western Reserve Univ. ’66, New Haven
*Stern, S., Univ. of New York ’57, New Haven
*Sterrett, R. A., Cornell ’39, Southport
*Stetson, H. P., Boston ’41, Southington
Stetson, H. W., Vermont ’06, Milford
*Stettbacher, H. J., Harvard ’22, Cambridge, Maryland (New Haven County)
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Stevens, T. J., S. U. N. Y. ’67, Hartford
*Stewart, L. Q., Yale ’33, South Yarmouth, Mass. (Hartford County)
Stewart, W. E. L., Albany ’52, New Britain
Stier, S., Temple ’70, New Britain
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*Stietzel, E. E., Columbia ’34, Norwalk
Stiff, D. P., Michigan ’56, Bridgeport
*Stilson, C., Yale ’42, New Haven
Stitleman, M., Albert Einstein ’66, Branford
*Stoane, L., Downstate Med. Ctr. ’60, Middletown
*Stocking, A. G., Long Island ’46, Waterbury
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Stone, E. L., Albert Einstein ’70, New Haven
*Storms, W. F., Harvard ’30, Wethersfield
*Stotts, H. L., Un. Washington ’52, Bridgeport
Stoughton, P. V., McGill ’53, Hartford
*Stovell, P. B., Columbia ’68, Norwalk
*Straub, J. J., Iowa ’72, Hartford
*Strauch, G. O., Michigan ’57, Stamford
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Strazek, L. M., Wroclaw ’60, Wallingford
*Street, J. M., Duke ’42, New Milford
Streeto, J. M., Pennsylvania ’60, Hartford
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*Stubblefield, R. L., Univ. of Texas ’42, New Canaan
Stubenhaus, J. H., N. Y. Med. Coll. ’47, Fairfield
Stuermer, V. M., Nebraska ’48, New Haven
*Sturman, R. H., Yale ’50, Waterbury
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Suerig, K. C., New York-Bellevue ’61, Cos Cob
Suesserman, H. I., George Washington Univ. ’64, New Haven
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*Sullivan, A. F., Jefferson ’42, Waterbury
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*Sullivan, J. J., Jr., Tufts ’55, Stamford
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Sullivan, P. R. C., Tufts ’66, Hartford
Sullivan, R. E., Georgetown ’63, Waterbury
*Sullivan, R. M., Tufts ’59, East Hartford
*Sullivan, T. J., Yale ’17, Boca Raton, Florida (New Haven County)
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*Sunderman, F. W., Jr., Jefferson ’55, Farmington
*Sundquist, A. B., Tufts ’33, Manchester
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Sutphen, J. H., Ohio State ’65, New London
Suttenfield, V., Georgia ’44, Stamford
*Sutton, P., Vienna ’36, Groton
*Svedlow, B. D., George Washington ’41, Stamford
Swain, E. B., Cornell ’51, Hartford
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*Swarts, W. B., Pennsylvania ’34, Greenwich
Swartz, A. N., Universad del Valle, Columbia ’73, West Hartford
*Swartz, G. J., Ottawa ’65, New Britain
Sweet, A. N., Maryland ’18, Middletown
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*Sweet, R. T., State Univ. N. Y. ’52, Middletown
Swett, N. P., N. Y. U. ’46, Hartford
*Swift, W. E., Columbia ’40, New Haven
*Sylvan, R. L., S. U. N. Y. Buffalo ’72, Hartford
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*Takata, H. Kobe Med. ’65, Hartford
*Talbot, H. P., Maryland ’27, Venice, Florida (Hartford County)
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Tan, D. L., Univ. of Groningen ’57, Meriden (New London County)
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Tan, J. M., Santo Tomas ’67, Fairfield
Tate, C. E., Kansas ’70, Watertown
Taub, A., Yale ’57, New Haven
Taube, S. L., Pittsburgh ’67, Waterbury
*Taubin, H. L., Un. Virginia ’65, Bridgeport
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Wetstone, Mrs. Howard J., 77 Kenwood Circle

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Phelps, Mrs. Paul S., R.F.D. 1

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Golino, Mrs. Emanuel F., 111 Holland La. 06118
Trantolo, Mrs. Arthur, 64 Holland Lane 06118

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ENFIELD 06030

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Turco, Mrs. Vincent J., 33 High St.

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Drury, Mrs. Robert, 194 Stanley Drive

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Pastel, Mrs. Harvey, 646 Porter
Rubinow, Mrs. Merrill, 68 Butternut Rd.
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Sundquist, Mrs. Alfred B., Box 374, R.D. 3
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Bernstein, Mrs. Dwight, 1 Ten Acre Rd.
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Formica, Mrs. Joseph J., 400 Shuttle Meadow Ave.
Peck, Mrs. Bernard C., 32 Park Pl.
Schectman, Mrs. Charles, 62 Dover Rd.
Wesoly, Mrs. Andrew S., 27 Grove Hill

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O'Neil, Mrs. Vincent D., 72 Southwood Rd.
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Boren, Mrs. Charles, 21 Mountain View Dr. 06117
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Braceland, Mrs. Francis J., 43 Ledyard Rd. 06117
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Brewster, Mrs. William B., Jr., 20 Northfield Rd. 06107
Bronson, Mrs. William R., 49 Smallwood Rd. 06107
Brown, Mrs. Donald, 30 Claybar Dr. 06117
Brown, Mrs. Louis, 136 Mohawk Dr. 06117
Brown, Mrs. Richard B., 49 Belcrest Rd. 06107
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Burns, Mrs. John E., 10 Paxton Rd. 06107
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Conant, Mrs. Roger, 11 Sunrise Hill Dr. 06107
Conroy, Mrs. John T., 46 Sunrise Hill Dr. 06107
Conway, Mrs. Edward J., 24 Mountain Terrace Rd. 06107
Conway, Mrs. Mark, 28 Juniper La. 06117
Crombie, Mrs. H. David, 126 Hunter Dr. 06107
Cunin, Mrs. Burton, 10 Berwyn Rd. 06107
Curis, Mrs. Francis T., 24 Mohawk Dr. 06117
Curran, Mrs. Timothy L., 14 Baintree Dr. 06117

Dalton, Mrs. George R., 339 South Main 06107
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Dowling, Mrs. Kevin V., 36 Westmount 06117
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Himelstein, Mrs. Monroe, 10 Squirrel Hill Rd. 06107
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McCooey, Mrs. John H., 527 Mountain Rd. 06117
McCormick, Mrs. James M., 110 Mountain Terrace Rd. 06107
McGowan, Mrs. George E., 154 Clifton Ave. 06107
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Meridy, Mrs. Howard, 115 Mohegan Dr. 06117
Miller, Mrs. Bennett, 46 Whetten Rd. 06117
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Molloy, Mrs. Robert J., 29 Fulton Pl. 06107
Morhardt, Mrs. Charles, 47 Midlands Dr. 06107
Moskowitz, Mrs. Harold, 14 Arlen Way 06117
Murphy, Mrs. John D., 55 Berwyn Rd. 06107
Myerson, Mrs. Manny, 22 Palmer Dr. 06117

Nakhoul, Mrs. Jabbour, 34 Timrod Rd., 06107
Nino, Mrs. Alfredo, 162 Hunter Drive
Nolan, Mrs. John O'L., 1 Orchard Lane 06117

O'Brien, Mrs. Frederick J., 75 Bambridge Rd. 06119
O'Brien, Mrs. John J., 22 Duffield Dr. 06107
O'Connell, Mrs. Paul, 20 Glen Hollow Rd. 06117
O'Connell Mrs. John D.. 42 Fulton Pl. 06107
O'Hurley, Mrs. John, 71 Westmont 06117
O'Keefe, Mrs. David F., 93 Newport Ave. 06107
Opinsky, Mrs. Morton, 47 Mountain Farms Rd. 06117

Perkins, Mrs. Joseph A., 16 Webster Hill Blvd. 06107
Perovic, Mrs. Miles N., 2 Great Meadow La.
Perovitch, Mrs. Milos, 5 Bishop Rd. 06119
Piacente, Mrs. Salvatore S., 107 Brookside Dr. 06107
Pitegoff, Mrs. Gerald I., 73 Norwood Rd. 06117
Prestley, Mrs. William F., 519 Mountain Rd. 06117
Pyrtek, Mrs. L. J., 145 Walbridge Rd. 06119

Radding, Mrs. Philip, 89 Lyman Rd. 06117
Rentz, Mrs. Robert, 9 Manor Lane 06107
Riddick, Mrs., 142 Whiting La. 06119
Ridlon, Mrs. Herrick C., 14 Glendale Rd. 06107
Ritvo, Mrs. Arnold, 15 Rushleigh Rd. 06117
Robertson, Mrs. Russell, 53 Westwood Rd. 06117
Robinson, David, 69 High Ridge Rd. 06117
Rogers, Mrs. Henry, 20 Brenway Dr. 06117
Rosenbaum, Mrs. George J., 16 Vardon Rd. 06117
Rosenberg, Mrs. Jack E., 114 Kirkwood Rd. 06117
Rosenberg, Mrs. Marvin, 65 Brewster Rd. 06117
Rosenthal, Mrs. Ernest, 17 Pine Rd. 06119
Rosenthal, Mrs. Irving I., 16 Northcliff Dr. 06117
Rossi, Mrs. Michael A., 136 Orchard Rd. 06117
Rotatori, Mrs. Eugene, 60 Berwyn Rd. 06107
Rothstein, Mrs. Isadore, 90 Haynes Rd. 06117
Roussis, Mrs. Konstantinos, 8 Pleasant Hill Dr.
Ruderman, Mrs. Mark, 54 West Normandy Dr. 06107

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Sadowski, Mrs. Joseph S., 150 Beacon Hill Dr. 06117
Satloff, Mrs. David M., 22 Forest Hills Dr. 06117
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Schear, Mrs. William A., 37 Sunset Farm Rd. 06107
Schloss, Mrs. Walter A., 31 Brookside Blvd. 06107
Schulyer, Mrs. Samuel, 304 Steele Rd. 06117
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Shapiro, Mrs. Reuben, 107 Ferncliff Dr. 06117
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Sponzo, Mrs. James J., 81 Hunter Dr. 06107
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Sullivan, Mrs. Paul R., 337 N. Steele Rd. 06117

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Trowbridge, Mrs. Philip E., 14 Dodge Dr. 06107
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Tucker, Mrs. Jolyon S., 89 Brookside Dr. 06107
Tyrrell, Mrs. David C., 2 Mt. Brook Rd. 06117

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Wardner, Mrs. LeRoy H., 64 High Farms Rd. 06107
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White, Mrs. Kenneth H., 47 Westminster Dr. 06107
Winters, Mrs. John T., 19 Linbrook Rd.
Wood, Mrs. Frank O., 28 Gloucester Lane 06107
Woodruff, Mrs. John H., 10 Sunfield Lane 06107

Zarkin, Mrs. Oscar H., 186 North Main 06107
Zeman, Mrs. Peter, 1890 Asylum Ave. 06107
Zimmerman, Mrs. Richard, 82 Parsons Dr.

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LoPresti, Mrs. Daniel A., 19 Fox Den Rd.

WETHERSFIELD 06109

Agee, Mrs. Fred B., Jr., 51 Westway
Aseltine, Mrs. Deal T., Jr., 99 Robeth Lane
Beakey, Mrs. John F., 25 Clearfield Rd.
Beck, Mrs. Roger S., 305 Dale Rd. 06109
Boelhouwer, Mrs. Cornelius, 359 Pine Lane
Butterfield, Mrs. Walter L., 26 Saxon Rd.
Casale, Mrs. Albert, 57 Rand La.
Callan, Mrs. John, 425 Coppermill Rd.
Cavalieri, Mrs. Rinaldo, 454 Highland
Curtiss, Mrs. Burr, 98 Highcrest Rd.
DePasquale, Mrs. John A., 732 Prospect
Fisher, Mrs. Robert L., 500 Highland
Gallivan, Mrs. John N., 951 Ridge Rd.
Giuliano, Mrs. Sebastian, 270 Wolcott Hill Rd.
Hellijas, Mrs. Carl S., 4 River Rd.
Izard, Mrs. Mark W., 35 Broad

Johnston, Mrs. Howard J., 522 Wolcott Hill Rd.
Muangman, Mrs. Ponga Pyn, 56 Goff Brook Cr.
Murphy, Mrs. Robert D., 404 Wolcott Hill Rd.
O'Brien, Mrs. E. James, 31 Surrey Dr.
Palermino, Mrs. Donato A., 78 Baneberry Lane
Reed, Mrs. John F., 381 Wolcott Hill Rd. 06109
Reinfrank, Mrs. Ralph F., 208 Highland
Ryan, Mrs. William D., 200 Ox Yoke Dr.
St. John, Mrs. Nicholas E., 375 Ridge Rd.
Steege, Mrs. Theodore W., 29 Eastern Dr.
Trench, Mrs. James M., 12 Eastern Dr.
Turner, Mrs. Wallace W., 102 Clover Crest Rd.

WINDSOR 06095

Das, Mrs. Amal, 173 Conestoga
Faiaz, Mrs. E. K., 28 Jonathen Circle
Keefe, Mrs. Raymond B., 1305 Windsor Ave.
Mack, Mrs. Daniel E., 932 Windsor Ave.
Silliman, Mrs. Warren B., P. O. Box 508, 26 Prospect

OUT-OF-COUNTY MEMBERS

Antupit, Mrs. Louis, 304 Clarke St., Westfield, N.J. 07090
Coelho, Mrs. Julio N., South St., Coventry Ct. 06238
Giddings, Mrs. Lane, 170 Forest Rd., Mountain Top., Pa. 18707
Ulreich, Mrs. Sidney, 89 Towne House Rd., Hamden, Ct. 06514

Litchfield County

CANAAN 06018

Sellew, Mrs. Robert, Sr., West Main
Sellew, Mrs. Robert, Jr., North Elm

LITCHFIELD 06759

Samson, Mrs. Daniel, Sweetbriar Farm

OAKVILLE 06779

Czarsty, Mrs. Joseph C., 18 Hillside Ave.

THOMASTON 06787

Wight, Mrs. Winfield K., 24 Goodwin Court

Middlesex County

CHESTER 06412

Nadel, Mrs. Martin, East Liberty

CLINTON 06413

Kerr, Mrs. Robert, Commerce St.
Rindge, Mrs. Norman P., 147 East Main

COLCHESTER 06415

Turano, Mrs. Andrew, Cemetery Rd.

CROMWELL 06416

Adams, Mrs. Henry A., 384 Main
Grant, Mrs. Richard, 482 Main
Nelson, Mrs. Walter, 360 Main

DURHAM 06422

Bird, Mrs. Kenneth, Wildwood Lane
Chace, Mrs. Charles W., Cedar Dr.
Donadio, Mrs. Joseph, Blue Hill Rd.
Kalayjian, Mrs. David, Guilford Rd.
Mahmud, Mrs. A. Wazed, Guire Rd.
Sosa, Mrs. Juan, Carriage Dr.

EAST HAMPTON 06424

Gardner, Mrs. Norman, 22 Summit

ESSEX 06426

Bardenheier, Mrs. Joseph, Hemlock Dr.
Dwyer, Mrs. Robert, Middlesex Tpke., Millstone Hill
James, Mrs. Raymond, River Rd., Millstone Hill
Lobb, Mrs. Russell A., Long Hill Rd.

HADDAM 06438

Arena, Mrs. Anthony, Meeting House Rd.
Buckley, Mrs. Willard, Oak Ridge Dr.
Concannon, Mrs. Patrick, Timms Hill Rd.
Gorin, Mrs. Malcolm, Timms Hill Rd.
Greenaway, Mrs. Michael D., Oak Ridge
Kaufman, Mrs. Herbert, Oak Ridge Dr.
Miller, Mrs. Donald, Timms Hill Rd.

HIGGANUM 06441

Bertuch, Mrs. William, P. O. Box 382
Calhoun, Mrs. Hazen A., Main
Catrini, Mrs. Vincent, Skunk Misery Rd.
Craig, Mrs. G. Mansfield, Saybrook Rd.
Kilga, Mrs. Lawrence, Lieutenant Shubael Rd.
Korab, Mrs. John J., Main
Longo, Mrs. Edward, Skunk Misery Rd.
Macionus, Mrs. Raymond, Skunk Misery Rd.
McCarthy, Mrs. Robert, Bartman Rd.
McDowell, Mrs. Arthur, Christian Hill Rd.
Rabuffo, Mrs. Jeffrey, Skunk Misery Rd.

MIDDLEFIELD 06455

Fiducia, Mrs. Joseph, Rosemary Ct.

MIDDLE HADDAM 06456

Clark, Mrs. Samuel, Keighley Pond Rd.

MIDDLETOWN 06457

Abad, Mrs. Alec, P. O. Box 557
Arafeh, Mrs. Mehadin K., 1 Harvey Dr., Box 351
Bernstein, Mrs. Alan, Maple Shade Rd.
Buchalter, Mrs. Daniel J., Miner St.
Cerritelli, Mrs. Dominick, Flynn La.
Crampton, Mrs. Clair B., 158 Mt. Vernon
Flanagan, Mrs. Joseph, 844 Long Hill Rd.
Frank, Mrs. Harry S., Stonegate Apts., South Main
Ganquli, Mrs. Prabhash, 251 Old Mill Rd.
Ghaussy, Aziz, 547 Main

Grower, Mrs. Julius, 70-B Rose Circle
Haight, Mrs. Barry, 734 Long Hill Rd.
Harvey, Mrs. Sanford, Ballfall Rd.
Harwood, Mrs. Clarence W., 135 Old Mill Rd.
Hoffman, Mrs. Daniel, Clover
Kelly, Mrs. John F., 256 Old Mill Rd.
LaBella, Mrs. Louis O., 10 Poinsettia
Lee, Mrs. John, 96 Olympus Pkwy.
Manzi, Mrs. Joseph, 195 Old Mill Rd.
McKay, Mrs. Donald, 116 Bretton Rd.
Minor, Mrs. Lloyd, 329 Coleman Rd.
Palmieri, Mrs. Mario, 200 Coleman Rd.
Pennington, Mrs. Robert B., 779 Ridge Rd.
Perlin, Mrs. Louis, Oakcliff Rd.
Prins, Mrs. Sal A., 67 Old Mill Rd.
Robbins, Mrs. Kenneth, 10 Yellow-Birch Rd.
Roccapriore, Mrs. Benjamin, Olympus Parkway
Schwartz, Mrs. Philip E., 74 Lisa Lane
Shenker, Mrs. Benjamin, 46 Pine
Sherwood, Mrs. Henry, 580 Kelsey
Soreff, Mrs. Louis, 148 Margarite Rd.
Thumin, Mrs. Mark, Maple Shade Rd.
Tracy, Mrs. F. Erwin, 202 Old Mill Rd.
Vinci, Mrs. Vincent J., Randolph Rd.
Yue, Mrs. James Kar-kee, Coleman Rd.
Zavod, Mrs. Robert, 1 Yellow Birch Rd.
Zelinka, Mrs. Miloslav, 11 Red Yellow Rd.

MOODUS 06469

Berwick, Mrs. Phillip, Plains Rd.

OLD SAYBROOK 06475

Baldwin, Mrs. David, 14 Pheasant Hill La.
Rowett, Mrs. Dale, Pheasant Hill La.
Thomas, Mrs. Eric, 393 Main St.

PORTLAND 06480

Alexander, Mrs. Stanley, 85 High, P. O. Box 67
Andrus, Mrs. Wayne, Stonegate Dr.
Brown, Mrs. Dewees, 21 Michele Dr.
Burke, Mrs. Gerald, Farm Lane
Ceulemans, Mrs. Cyril, 4 Hall Hill Rd.
Crowther, Mrs. Daniel, Farm Lane
Dooley, Mrs. John, Michelle Dr.
Eckhart, Jr., Mrs. Kenneth, 32 Michelle Dr.
Epstein, Mrs. Joseph, P. O. Box 227
Hickox, Mrs. David, Jobs Pond Rd.
Longo, Mrs. Americo, 344 Main St.
Lambe, Mrs. Thomas, Scenic Dr.
Niejadlik, Mrs. Daniel, 17 Michele Dr.
Rosenbaum, Mrs. Howard, 87 William
Silberstein, Mrs. Allen, 68 William
Stoane, Mrs. Leonard, 7 Clearview Dr.
Thomson, Mrs. A. W., 73 William
Waldman, Mrs. Arthur, Farm Lane

OUT-OF-COUNTY MEMBERS

Gallo, Mrs. Sebastian, 18 Robeth La., Wethersfield 06109

New Haven County

BETHANY 06525

Cousins, Mrs. Marvin, Sperry Rd.

BRANFORD 06405

Conte, Mrs. Harry C., 15 Pawson Landing Dr.
Errico, Mrs. Austin, 45 Sagamore Cove
McKeon, Mrs. James, Harbour Village 27-C
Ranieri, Mrs. Alfred, 8 Oakdale Rd.
Reisman, Mrs. John P., Hearthstone, Boston Post Rd.
Vegliante, Mrs. Michael, 31 Castle Rock

CHESHIRE 06410

Allen, Mrs. Edward P., c/o Elim Park Baptist Nursing Home
Kramer, Mrs. Fred, 18-19 Currier Way
Pyum, Mrs. Kyum, 99 Williamsburg Dr.
Manes, Mrs. Peter R., 270 Nob Hill Rd.
Mari, Mrs. Eduardo, 28 Williamsburg Dr.

DERBY 06418

Iannotti, Mrs. Salvatore, 10 Lombardi Dr.
Narowski, Mrs. John, 153 Sentinel Hill

EAST HAVEN 06512

Mancini, Mrs. A. D., 176 Tyler St.

GUILFORD 06437

Crawford, Mrs. William O., Jr., 264 Church
Cwik, Mrs. Ronald, 138 Oxbow La.

HAMDEN

Albis, Mrs. Michael, 14 Brenton Terrace
Camilleri, Mrs. Joseph, 835 Ridge Rd. 06517
Cassin, Mrs. Carl, 947 Choate Ave. 06518
Cipriano, Mrs. Anthony, 15 Eastland Rd. 06517
Coe, Mrs. Ronald E., 1727 Whitney Ave. 06514
Culotta, Mrs. Charles, 2714 Whitney Ave. 06518
Greenwald, Mrs. Willard, 1125 Ridge Rd. 06517
Greenhouse, Mrs. H. Robert, 72 Rochford Ave.
Harvard, Mrs. B. Marvin, 105 Spring Glen Terr.
Heiger, Mrs. Arnold, 4 Hesse Rd.
LaFemina, Mrs. Nicholas, 60 Dawes Ave. 06517
Levenstein, Mrs. Marvin, 146 Shepards Knoll Dr. 06514
Levis, Mrs. Albert, 22 Spring Glenn Ter.
McDonnell, Mrs. Robert, 978 Ridge Rd. 06517
Mendillo, Mrs. John J., 25 Tokeneke Dr. 06518
Olson, Mrs. Lowell, 85 River Rd. 06518
Palluotto, Mrs. William V., 50 Old Hartford Tpke.
Pickett, Mrs. Lawrence, 205 Blake Rd. 06517
Radowiecki, Mrs. M. Walter, 196 Corbin Rd. 06517
Richards, Mrs. William R., 116 Brook 06514
Stroup, Mrs. Ralph, 35 Wright La.
Wong, Mrs. Andrew, 260 Blue Trial

MADISON 06443

Sklaire, Mrs. Martin, 30 Conestoga Dr.

MERIDEN 06450

Carey, Mrs. William C., 136 Eaton Ave.
Esposito, Mrs. M. J., 379 Oregon Rd.
Flynn, Mrs. Charles, 34 Woodlawn Ter.
Fritz, Mrs. Harvey, 141 Overlook Dr.
Gottlieb, Mrs. Marvin, 199 Northfield Rd.
Guttenburg, Mrs. Irving, 21 Reynolds Dr.
Langner, Mrs. Joseph, 125 Oregon Rd.

Misuk, Mrs. Joseph, 111 Hillcrest Ter.
Morrison, Mrs. Robert, 55 Harkness Dr.
Pierson, Mrs. Louis A., 130 Bradley Ave.
Wagshul, Mrs. Ely, 1 Brownstone Ridge

MIDDLEBURY 06762

Blain, Mrs. Claude, Central Rd.
Liao, Mrs. Sung J., Sky Line Dr.
Reed, Mrs. David, 202 Central Rd.
Sharian, Mrs. Kent, 81 Carriage Dr.
Ryan, Mrs. Sylvester, Breakneck Hill

MILFORD 06460

Baird, Mrs. William, 105 North
Barney, Mrs. Walter E., 35 Prospect
Parrella, Mrs. Lucy, 67 Prospect St.

NAUGATUCK 06770

Cornacchia, Mrs. Rocco, 567 Field

NEW HAVEN

Albom, Mrs. J. J., 200 Fountain 06515
Amatruda, Mrs. Frank, 8 Beechwood La.
Amore, Mrs. Frederick, 167 Maple 06511
Barker, Mrs. Creighton, 119 Armory 06511
Barse, Mrs. Richard, 266 Marvelwood Dr.
Batt, Mrs. Harold, 175 Whitter Rd. 06515
Bradburn, Mrs. H. B., 425 St. Ronan 06511
Bratu, Mrs. Marcel, 20 Wellington Rd. 06515
Chetrick, Mrs. Allen, 78 Marlin Dr. 06515
Clement, Mrs. David, 237 East Rock Rd. 06511
Climo, Mrs. Samuel, 25 Woodside Ter. 06515
D'Alessio, Mrs. Charles, 523 Yale Ave. 06515
Etkind, Mrs. Meyer, 1546 Chapel St. 06511
Felig, Mrs. Phillip, 15 Edgewood Way 06515
Forman, Mrs. Joseph, 165 Stevenson Rd. 06515
Freedman, Mrs. Barnett, 111 Park 06515
Freedman, Mrs. Jerome, 460 St. Ronan
Levin, Mrs. Hyman, 168 Linden 06511
Levine, Mrs. Julius, 125 Kohary Dr.
Liebowitz, Mrs. Meyer, 115 Kohary Dr. 06515
Mahnensmith, Mrs. Rex L., 145 Cottage 06511
Millen, Mrs. Samuel R., 135 Cleveland Rd. 06515
Passarelli, Mrs. Nicholas L., 2055 Chapel 06515
Piccolo, Mrs. Pasquale, 508 Yale Ave. 06515
Pinkes, Mrs. Alexander, 183 Bishop St.
Raccuglia, Mrs. Giovanni, 109 Sherman Ave.
Schwartz, Mrs. Solomon, 1781 Boulevard 06511
Silberstein, Mrs. Morton, 25 Colony Rd.
Silverberg, Mrs. Samuel, 140 Laurel Rd. 06511
Swirsky, Mrs. Morgan Y., 280 McKinley Ave. 06515
Wolff, Mrs. Emanuel, 251 Edwards 06511
Zuckerman, Mrs. Bernard D., 25 Beaver Hill Lane 06511

NORTH HAVEN 06473

Baskin, Mrs. Arnold W., 26 Old Orchard Rd.
Davey, Mrs. Lycurgus M., 1010 Hartford Tpke.
Dolinsky, Mrs. A. H., 12 Crestview Dr.
Downing, Mrs. Lewis C., 87 Highland Park
Ferranti, Mrs. Redento, 6 Hilltop Terrace
Fezza, Mrs. Andrew, 20 Westview Rd.
Fischer, Mrs. Daniel, 22 Windsor Rd. East
Goodman, Mrs. Alan, 23 Primrose St.
Kaplan, Mrs. Harold, 42 Drazen Drive
Hart, Mrs. Robert W., 2233 Ridge Rd.
Hess, Mrs. Orvan, 29 Old Orchard Rd.
Kessler, Mrs. Frederick, 20 Dogwood Rd.
Lujic, Mrs. Peter, 1776 Ridge Rd.
Morgan, Mrs. Walter, 41 Tokeneke Dr.
Noto, Mrs. Philip, 17 Marion
Parisi, Mrs. Anthony, 30 Windsor Rd.

ORANGE 06477

Aguiar, Mrs. Jose, 45 Williamsburg Dr.
Brodoff, Mrs. Murray, 21 Williamsburg Dr.
Doheny, Mrs. James J., 885 Blackberry Hollow
Fox, Mrs. Marvin, 55 Sportsman Rd.
Habib, Mrs. Nabil I., 839 Robert Treat Ext.
Holden, Mrs. Jack, 814 Grassy Hill Ad.
Hurwitz, Mrs. Sidney, 35 Williamsburg Dr.
Kreis, Mrs. David, 42 Whitney Lane
Landau, Mrs. Jack, 154 Englewood Dr.
Landwirth, Mrs. Julius, 625 Brentwood Rd.
Lanzi, Mrs. Robert, 64 Hall
Lattanzi, Mrs. William, 834 Dentree Dr.
Lebson, Mrs. Robert, 983 Rainbow Trail
Lin, Mrs. Paul T-C., 609 Chestnut Ridge Rd.
Manjoney, Mrs. Richard C., 760 Dennis Dr.
Marieb, Mrs. Norman, 266 Hemlock Dr.
Milazzo, Mrs. Nicholas, 173 Englewood Dr.
Morrison, Mrs. John, 140 Cherry Hill Rd.
Petrillo, Mrs. Charles, 66 Derby Ave.
Phillips, Mrs. Carlton, 682 Estelle Ct.
Rifkin, Mrs. Boris, 399 Clark Lane
Sikorski, Mrs. Jerzy, 238 Harvester Rd.
Turkalo, Mrs. J. R., 894 Orange Center Rd.
Zagraniski, Mrs. Raymond, 48 Whitney Lane

OXFORD 06483

Boissevian, Mrs. Andre, 109 Quaker Farm Rd.

SHELTON 06484

Galen, Mrs. Jack H., 93 Myrtle
Roach, Mrs. Donald, 40 Judson Circle
West, Mrs. William, 147 Huntington

SOUTHBURY 06488

Summa, Mrs. John, Bucks Hill Rd.

STONY CREEK 06405

Zimmerman, Mrs. Marvin, 23 Prospect Hill

WALLINGFORD 06492

Fazzone, Mrs. Philip, 290 Cook Hill Rd.
Francescon, Mrs. Sergio D., 10 Spring Brook Rd.

WATERBURY

Blank, Mrs. Samuel, Southwest Rd. 06708
DePetrillo, Mrs. Bart, 619 Willow 06710
Eguia, Mrs. Jose, 164 Harwood Rd. 06706
Eslami, Mrs. Mehdi, 139 Eastfield Rd. 06708
Gualtieri, Mrs. Michael, 55 Forest Ridge Rd. 06709
Koleshko, Mrs. Lawrence, 1022 Bunker Hill Ave. 06708
Lenkowski, Mrs. William, 107 West Ridge Dr. 06708
Mayo, Mrs. Elliott Russell, 129 Prospect 06702
Nezhad, Mrs. Michael F., 35 Campfield Rd. 06708
Posada, Mrs. Humberto, 46 Stephana La.
Reynolds, Mrs. Joseph, 185 Pine 06710

Root, Jr., Mrs. James H., 87 Highland Ave.
Rosenbaum, Mrs. Haskell, 161 Avalon Circle 06710
Santopietra, Mrs. Olindo, 241 Forest Ridge Rd., 06708
Segall, Mrs. Edward, 162 Southwind Rd. 06708
Sullivan, Mrs. Arthur, 493 Willow 06710
Tormo, Mrs. Vincent, 76 Robinwood Ave. 06708
Traurig, Mrs. Allen, 166 Avalon Circle 06710
Veiga, Mrs. A. S., 55 Eastfield Rd. 06708
Weisberg, Mrs. H. E., 232 Maybrook Rd. 06708
Villa, Mrs. Alberto, 625 Country Club Rd.
Yavetz, Mrs. Louis, 184 Columbia Blvd. 06710

WEST HAVEN 06516

Job, Mrs. Gil, 32 Priscilla Rd.
Milano, Mrs. N. A., 277 Elm
Milici, Mrs. John J., 354 Campbell Ave.
Mujtaba, Mrs. Qaiyum, 78 Savin Ave.
Tierney, Mrs. Lawrence, 246 Elm

WOLCOTT 06716

Whalley, Mrs. Evan, 76 Pratt Lane

WOODBRIDGE 06525

Alpert, Mrs. Abraham, 21 Wolf Tree Dr.
Arons, Mrs. Marvin, Hunting Hill Rd.
Berneike, Mrs. Robert, Hickory Rd.
Brochin, Mrs. Malcolm, Hemlock Hollow Rd.
Cimmino, Mrs. Gerald, Dillon Rd.
Davidson, Mrs. Alan, 15 Edge Hill Dr.
Delpizzo, Mrs. A., 14 Dickinson Dr.
Dineen, Mrs. Joseph, 18 Indian Trail
Etkind, Mrs. Ewald, 1 Bright Wood Dr.
Flores, Mrs. Jose, 1057 Johnson Rd.
Gagliardi, Mrs. Joseph, Jr., Forest Glen Dr.
Goetsch, Mrs. John, Cleft Rock Lane
Goldstein, Mrs. Paul, 21 Pine Ridge Rd.
Goodrich, Mrs. Isaac, 15 Birch Dr.
Gruskay, Mrs. Frank, Pine Ridge Rd.
Hurwitz, Mrs. Robert, 14 Tulip Tree La.
Ingenito, Mrs. Gabriel, 181 Center Rd.
Katz, Mrs. Jay, Inwood Rd.
Kra, Mrs. Siegfried, Pleasant Hill Rd.
Laubstein, Mrs. Melvin, Richard Sweet Dr.
Lawson, Mrs. Jack, Brierwood Dr.
Maric, Mrs. Radoslav, 77 Ford Rd.
Mattie, Mrs. Louis R., Dogwood Circle
Petrie, Mrs. Stewart J., 16 Wolf Tree Dr.
Polayes, Mrs. Irving, 49 North Racebrook Rd.
Sachs, Mrs. Frederick, 42 Indian Trail
Savin, Mrs. Ronald, Edgehill Dr.
Scarpa, Mrs. Francis J., 38 Richard Sweet Dr.
Schioppo, Mrs. Dominic B., 46 Newton Rd.
Schwartz, Mrs. A. Herbert, Indian Trail Rd.
Sumner, Mrs. Martin, Dickinson Dr.
Weisinger, Mrs. Philip, Blue Trail Dr.
Winer, Mrs. Paul, Tumblebrook Rd.
Wirth, Mrs. Michael N., Pine Ridge Rd.

OUT-OF-COUNTY MEMBERS

Collins, Mrs. Joseph O., 326 Woodbury Rd., Watertown 06795
Czarsty, Mrs. Joseph C., 18 Hillside Ave., Oakville, Ct. 06779
Schure, Mrs. George, 504 Rock Ridge Rd., Fairfield 06430
Sherman, Mrs. Joel, 343 Concord Dr., Watertown 06795

New London County

BALTIC 06330

Browning, Mrs. S. Pearce III, 671 Scotland Rd. R.F.D. 1
Oakley, Mrs. David E., Box 717

COLCHESTER 06415

Conrad, Mrs. Carl, R.F.D. 2, Palmer Rd.

EAST LYME 06333

Edgar, Mrs. Edward, 9 Black Oak Dr.
Fleisher, Mrs. Paul, 19 Legendary Rd.
Immordino, Mrs. Peter A., 351 Boston Post Rd.
Madsen, Mrs. John E., Jr., 52 Heritage Rd.
Saxe, Mrs. Louis, 3 Colonial Dr.

JEWETT CITY 06351

Gosselin, Mrs. Albert, R.F.D. #4

GROTON 06340

Brown, Mrs. Walter, 91 Broad
Hollister, Mrs. James M., 76 Starr Hill Rd.
Holt, Mrs. Edward, 145 Military Highway
Kuhn, Mrs. Frank, Clubhouse Rd., Groton Long Point

LEBANON

Springer, Mrs. Gerald, Rt. 87 R.D. #1

LYME 06371

Cavicke, Mrs. David, Joshua Rd.
Ely, Mrs. Julian, R.F.D. 2

MYSTIC 06355

Kaplan, Mrs. Donald, Scott Lane
Plankeel, Mrs. John, 66 Hilltop Rd.
Pukay, Mrs. Boris, 21 East Main St.

NEW LONDON 06320

Beatman, Mrs. Bernard, 16 Niles Hill Rd.
Becker, Mrs. Joseph, 2 Henderson Rd.
Bobruff, Mrs. Jerome, 765 Pequot Ave.
Hendel, Mrs. Isadore, 336 Pequot Ave.
Karna, Mrs. Martin, 894 Ocean Ave.
Krinsky, Mrs. Charles M., 943 Ocean Ave.
Lena, Mrs. Hugh F., Jr., 100 Broad
Loiacono, Mrs. Richard, 61 Parkway South
Longo, Mrs. Vincent, 967 Pequot Ave.
Lubchansky, Mrs. Jacob, 24 Reyquin
Makover, Mrs. Richard, 40 Mott Ave.
Mariani, Mrs. Roland, 899 Ocean Ave.
Murray, Mrs. William J., Jr., 614 Montauk Ave.
Olsen, Mrs. Robert C., 6685 Pequot Ave.
Pembroke, Mrs. Richard C., 464 Ocean Ave.
Peterson, Mrs. David, 210 Gardner Ave.
Reich, Mrs. Louis H., 292 Montauk Ave.
Roe, Mrs. C. Francis, 774 Ocean Ave.
Schmidt, Mrs. William, 8 Hillside Rd.
Spitz, Mrs. Hilliard, 17 Henderson Rd.
Sprecace, Mrs. George, 33 Hillside Rd.
Sulman, Mrs. Morris, 737 Pequot Ave.
Wies, Mrs. Carl, 756 Pequot Ave.

NIANTIC 06357

Dey, Mrs. Frederick, 15 Smith Ave.
Fulchiero, Mrs. Egidio, 9 Laurel Hill Drive So.
Kramm, Mrs. William A., 70 Hope
Reilly, Mrs. John, 55 Terrace
Schloz, Mrs. Dieter, 62 S. Ledge Rock Rd.
Solin, Mrs. Michael E., 39 West End Ave., Attawan Beach

NORWICH 06360

Ahamad, Mrs. Sultan, 39 Tanglewood Dr.
Albamonti, Mrs. Mario J., 46 Rockwell
Archambault, Mrs. Henry, 18 Wayne
Barrett, Mrs. Frederick, 256 Broadway Ave.
Bergendahl, Mrs. H., 17 Huntington Lane
Betten, Mrs. Michael, R.F.D. #2
Bielecki, Mrs. Casmir, 17 Hartland Place
Coletti, Mrs. Larry, 34 Gulliver Circle
Costa, Mrs. Pasquale, 44 Gulliver Circle
Cranston, Mrs. Robert J., 43 Ox Hill Rd.
DeGroot, Mrs. Theodore, 18 Broad St.
Drobnes, Mrs. Sidney, 211 Harland Rd.
Eadie, Mrs. Frederick, 5 Chelsea Parades
Edgar, Mrs. Malcolm C., 410 Washington
Esfahanian, Mrs. Said, 91 Sherwood Lane
Friedman, Mrs. Franklin P., 41 Reservoir Rd.
Gilmartin, Mrs. Daniel, 117 Mediterranean Lane
Glenney, Mrs. Christopher, 16 Huntington Lane
Goldblatt, Mrs. Jeffrey, 18 Huntington Lane
Greene, Mrs. Leonard, 260 Washington St.
Griffin, Mrs. Clement, 22 Briar Hill Rd.
Gulino, Mrs. Angelo, 15 Campion Ave.
Guss, Mrs. Louis, 59 Sachem Rd.
Harkins, Mrs. James A., 96 Case
Joseph, Mrs. Julien L., Scotland Rd., R.F.D. 4
Kalams, Mrs. Zanis, 74 Case
Kantharaj, Mrs. A. J., 42 Tanglewood Drive
Katz, Mrs. Morris E., 24 Broad
Kelleher, Mrs. James, 403 Washington
Kerrigan, Mrs. Robert, Mediterranean Lane
Kropp, Mrs. Peter, 4 Dellwood Rd.
Lee, Mrs. Woong Bum, 80 Sherwood La.
Lesnik, Mrs. Thomas, 27 Scotland Rd.
Lord, Mrs. Benjamin J., 167 Washington
Mahoney, Mrs. Joseph, 74 Ox Hill Rd.
Mandell, Mrs. Harvey, Indian Spring La.
Martin, Mrs. John, 28 Montgomery Lane
Martin, Mrs. Morgan, Box 508, Norwich State Hospital
Masterson, Mrs. Thomas, 23 East Town
McKeon, Mrs. William, 18 Sherwood Lane
Morrison, Mrs. John, 11 Lincoln Ave.
Oppenheimer, Mrs. Kurt, 8 Dupont Lane
O'Toole, Mrs. Peadar, Norwich State Hospital, Box 508
Parthenis, Mrs. Alex, Box 508 Norwich Hospital
Pastel, Mrs. Neil, Pine Brook Village, Sheraton Lane
Phillips, Mrs. Nicholas T., 14 Montgomery Lane
Richeimer, Mrs. William, 32 Lyman Hill Rd.
Rosenberg, Mrs. Peter J., 420 Washington
Rousseau, Mrs. David, Case
Sawyer, Mrs. David, 236 Washington
Schwarz, Mrs. H. Peter, 172 Washington
Sculco, Mrs. Mario, 195 Washington
Sears, Mrs. Lewis, 15 Julian
Taylor, Mrs. K. Stephens, 34 Rockwell St.
Thompson, Mrs. Clarence, 324 Canterbury Tpke.
Torres, Mrs. Clemenico, 172 Harland Rd.
Tramontozzi, Mrs. Anthony, R.F.D. 4
Wahba, Mrs. Hany S., Sherwood Dr.
Ward, Mrs. Franklyn P., 124 N. Wawecus Hill Rd.
Watson, Mrs. James E., 53E Town

NORWICHTOWN 06360

Wilson, Mrs. Clifford, 19 E. Town

OLD LYME 06371

Ely, Mrs. Julian, R.F.D. #2
Hostnik, Mrs. William J., Lyme
Klimek, Mrs. Robert, Littlefield La.

OLD MYSTIC 06372

Jones, Mrs. William, North Stonington Rd., Box 164
Jung, Mrs. Robert, Box 183

QUAKER HILL 06375

Starr, Mrs. Richard, 7 Best View Rd.
Wade, Mrs. Philip, 55 Scotch Cap Rd.

SALEM 06415

Bingham, Mrs. David, White Birch Rd.

STONINGTON 06378

Haines, Mrs. Henry, R.F.D. #2 06376

UNCASVILLE 06382

Rasmussen, Mrs. Norman, 92 Depot Rd.

WATERFORD 06385

Bedrick, Mrs. Morton, 141 Oswegatchie Rd.
Behringer, Mrs. Frederick, 14 Susan Ter.
Burton, Mrs. George, 10 Colonial Dr.
Coulson, Mrs. Louis, 58 Ridgewood Ave.
Dyer, Mrs. Charles F., 5 Showandasee Ave.
Kim, Mrs. Albert, 11 Trumbull Rd.
Marchand, Mrs. Gilles, 3 Jonathan Law Ct.
Marx, Mrs. Frank, 58 Gallup Lane
McCue, Mrs. Martin P., 473 Boston Post Rd.
Robinson, Mrs. Charles, 12 Baldwin Dr.
Sprafke, Mrs. Donald, Rogers Hill Rd.

OUT-OF-COUNTY MEMBERS

Aromin, Mrs. Salvadore, 24 Prospect St., Moosup, Ct. 06354

Windham County

ABINGTON 06230

Valentine, Mrs. Bruce Robert

BROOKLYN 06234

O'Brien, Mrs. Gerald J., P.O. Box 238

CANTERBURY 06331

Galasyn, Mrs. Valentine, Buck Hill Rd.

COLUMBIA 06237

Basden, Mrs. Edwin H., Route 87
Becker, Mrs. George E., Lake Rd.

COVENTRY 06238

Bowen, Mrs. Robert Phillip, High
Doyle, Mrs. Fred, South River Rd.

DANIELSON 06239

Chartier, Mrs. Gerard, 40 Morin Ave.
Jones, Mrs. James Franklyn, Green Hollow Rd.
Robinson, Mrs. Lavius, Jr., 9 Hutchins
Weigel, Mrs. Stanley Joseph, 6 Peckham La.

DAYVILLE 06241

Chung, Mrs. Evik, R.F.D. No. 1, Box 460
Dufort, Mrs. Robert, R.F.D. 1, Box 724
Raheb, Mrs. Edmond, R.F.D. 1, Box 702

EAST WOODSTOCK 06244

Klare, Mrs. Rudolph Emil, Route 169

HAMPTON 06249

Woodworth, Mrs. John Albert, No. Bigelow Rd.

JEWETT CITY 06351

Kennedy, Mrs. George L., 5 Maple

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